



# sheep notes and news

ISSUE #1, VOLUME 17, JANUARY - APRIL 1984

## Table of Contents



HOW TO MAKE MONEY IN THE SHEEP BUSINESS .....	1 - 3
LETTER TO THE EDITOR .....	4
1983 ALBERTA SHEEP SYMPOSIUM .....	4
SUMMARY - SHEEP DISEASE SUMMARY .....	5 - 6
FEEDING MONENSIN TO FEEDLOT LAMBS .....	7
1984 ALBERTA RAM TEST STATION HAS RECORD ENTRY .....	8
FROM THE RESEARCH BENCH	
Effects of Cold Stress on Sheep .....	9
Livestock and Dairy Produce .....	9 - 10
Vaginal Stimulation .....	10 - 12
NEWS FROM LAMBCO .....	12
PROGRESS ON RED MEAT STABILIZATION PLAN .....	13
KETONE TEST HELPS MANAGE EWE FEEDING .....	13
WORLD SHEEP AND WOOL CONGRESS .....	14

Editor: Don Scheer  
Head, Sheep and Goat Section  
7000 - 113 Street  
Edmonton, Alberta  
T6H 5T6

Phone: (403) 427-5077

**Alberta**

AGRICULTURE

Animal Industry Division  
Beef and Sheep Branch



# HOW TO MAKE MONEY IN THE SHEEP BUSINESS

(A series of timely articles intended to help producers improve their net income)

John Knapp - Sheep Specialist, Airdrie

## ARTICLE I

### Can I Make More Money Selling My Lambs Railgrade Vs Liveweight?

Yes, you probably can. In fact, on winter born concentrate fed lambs you may make up to \$5 extra income per lamb simply by choosing to rail grade. For someone shipping 1000 lambs this could mean \$5000 extra income.

As a producer of course, you have the option of selling your lambs either "rail grade" or

"liveweight". If you choose to sell "rail grade" you receive a certain price per pound for the hot dressed carcass weight of your lamb (kidneys in, liver out). The current Lambco railgrade price (April 30) is \$1.70/lb. for lambs grading A1, A2 weighing up to 58 lbs. Lambs which fall outside this range are subject to the price discounts outlined in Table I.

TABLE I

LAMBCO RAILGRADE PRICE GRID  
(Apr 30, 1984)

GRADE	WEIGHT (Lbs)	PRICE DISCOUNT
A1, A2	58 and under	NIL
	59 - 63	25¢
	64 - 67	50¢
	67 +	75¢
A3 (fat)	52 and under	15¢
	53 - 58	20¢
	59 - 63	40¢
	64 - 67	65¢
	67 +	90¢
A4 (very fat)	52 and under	20¢
	53 - 58	25¢
	59 - 63	45¢
	64 - 67	70¢
	67 +	95¢
B1, B2 (under- finished)	52 and under	16¢
	53 - 58	21¢
	59 - 63	36¢
	64 - 67	51¢
	67 +	76¢
C1, C2 (Junk)	67 and under	70¢
	67 +	95¢



If you opt to sell liveweight you are paid a certain price/lb for your lambs based on their weight as they cross the scale at Lambco. If you live a long way from the plant and ship through an assembler you will be paid on the weight of lamb as it crosses his scale, less a certain % shrink which corresponds to the actual weight loss the lamb will undergo on its trip to Lambco. The current Lambco liveweight price is 78¢ - 80¢/lb for oldcrop lambs and 80¢ - 82¢/lb for newcrop lambs.

The advantage to selling railgrade is based on the dressing % of your lambs. Let's examine this by following 2 very different

lambs through the system.

"Lambchops" is a rapidly growing newcrop lamb born in January on your farm 300 miles from Lambco. Just prior to loading, "Lambchops" weighs 110 lbs. During his journey to Lambco he loses 4 lbs shrink and arrives weighing 106 lbs. Using Table II we can see that if you opt to sell on a liveweight basis "Lambchops" is worth 106 lbs X \$.82 = \$86.92. On the other hand if you opt to sell on a railgrade basis, and "Lambchops" dresses out at 51% he is worth 106 lbs x .51 X \$1.70 = \$91.90. The same lamb is worth \$5.00 more rail grade versus live weight!

TABLE II

COMMON RANGE OF DRESSING % ON  
NEW CROP LAMBS\*

DRESSING %	RAILGRADE RETURN (\$1.70/lb)	LIVEWT. RETURN (82¢/lb)	ADVANTAGE TO RAILGRADE
48	86.50	86.92	- .43
49	88.30	86.92	+1.38
50	90.10	86.92	+3.18
51	91.90	86.92	+4.98

\*Assume lamb is 106 lbs liveweight at Lambco, 120 days old, carrying 2.5 lbs wool.

Of course it's unrealistic to expect that every lamb will grade perfectly. Let's suppose you ship 100 lambs which average 106 lbs live at the plant and dress out at an average of 50%. In your shipment 90 lambs grade A1, A2, 5 grade A3, 2 grade B, 1 grades C, and 2 are 60 lbs carcass weight. Using the discounts in Table I the shipment would be worth \$8871.14 for an average value of \$88.71 /lamb. On a liveweight basis each lamb is worth \$86.92. It might be

realistic therefore to expect approximately \$2. extra/lamb by opting to railgrade newcrop lambs.

A note of caution - during the heavy run of lambs in the summer months, a lamb may not be killed within 24 hours of arriving at the plant. Additional shrink may occur. However, railgrade lambs do receive priority on the killing floor. Ask your lamb buyer about this.

Now lets look at "Slowpoke," an oldcrop lamb 11 months of age who weighs 110 lbs prior to shipping. He has developed a sizeable rumen and is carrying 6 lbs of wool to which is attached 6 lbs of dried manure. As you can see from Table III if you opt to sell "Slowpoke" liveweight he is worth  $106 \times \$ .80 = \$84.80$ . On the other hand if you opt to railgrade him and he dresses out at 46% he is worth  $106 \times .46 \times \$1.70 = \$82.89$ . Railgrade in this case appears to cost you about \$2. Beware. It's difficult to fool the packer. If you arrive with a load of very poor quality lambs thinking you are going to make a

killing selling liveweight you may be very surprised to hear the lamb buyer say "Although the price is 80¢ today, this load is full of B's and C's, so I can only give you 60¢/lb liveweight."

Of course if you opt to sell railgrade the packer knows he is protected from overfat, underfinished or overweight carcasses and from other "surprises" under the hide. Naturally he is prepared to offer a premium if he knows he is only paying you for the amount and quality of saleable product you deliver him.

TABLE III

COMMON RANGE OF DRESSING % ON  
OLD CROP LAMBS  
(106 lbs live at Lambco)

DRESSING %	RAILGRADE RETURN (\$1.70/lb)	LIVEWEIGHT RETURN (80¢/lb)	ADVANTAGE TO RAILGRADE
45	\$81.09	84.80	- \$3.71
46	82.89	84.80	- 1.91
47	84.69	84.80	- .11
48	86.50	84.80	+ 1.70

If you are weighing your lambs prior to shipping you should not have a serious problem with carcasses over 58 lbs. If you are concerned about the amount of finish on your lambs try shipping half your lambs railgrade. You may be pleasantly surprised by your railgrade returns. In

reality there are many more "Lambchops" lambs than "Slowpoke" lambs in the system. In fact, probably 95% of the winter born, concentrate fed lambs on your farm will fit into the "Lambchops" category. Consider railgrading these lambs. It could be worth a lot of money to you.



Letter to the Editor

Dear Mr. Scheer:

Please find enclosed a brief summary of the preliminary results of the sheep disease survey (see page 5 - 6 of this issue) that Dr. R. Curtis and I carried out last year. We have not yet completed the analysis of the data but we will attempt to disseminate the final results of the study to the sheep industry by publishing them in scientific journals and industry magazines.

Dr. Curtis and I would like to thank you for encouraging producers

to participate in this study and if you have any questions or comments about these preliminary results we would appreciate receiving them.

Yours truly,

Ian R. Dohoo,  
D.V.M. Ph. D  
Agriculture Canada  
Food Production and Inspection  
Branch  
Room 413, Halldon House  
2255 Carling Avenue  
Ottawa, Ontario  
K1A 0Y9

1983 ALBERTA SHEEP SYMPOSIUM

The 1983 Alberta Sheep Symposium held in Banff last December was a raging success. Over 200 participants enjoyed either the symposium speakers or the wool workshop, "A Touch of Class" by Linda McPhee from Edmonton. The highlight of the symposium was the fellowship and opportunity to discuss common concerns with others committed to strengthening the sheep industry.

Everyone who attended the symposium should now have received a copy of the proceedings. If you haven't or if you didn't attend the symposium, but would like a copy of the proceedings please contact Don Scheer, Head, Sheep and Goat Section, 7000 - 113 Street, Edmonton, Alberta T6H 5T6, 427-5077.

There are only a few copies of the proceedings remaining.

# Summary - Sheep Disease Survey

## RESPONSE

301 farms were contacted initially

224 farms replied to one or more of the 4 questionnaires

116 farms replied to 3 or 4 of the questionnaires

FARM INFORMATION (based on all 24 farms that responded)

- average flock size was 136 ewes (range xxx to xxx)
- 89 flocks contained mainly purebred ewes
- 49 flocks contained a mixture of purebred and crossbred ewes
- 86 flocks contained mainly crossbred ewes
- 20% of flocks had over 50% of ewes on a accelerated lambing schedule
- Percent of farms using various disease control procedures

clostridial vaccine	79%
enzootic abortion vaccine	3%
vibrio (campylobacter) vaccine	1%
orf (sore mouth) vaccine	4%
foot rot vaccine	8%
lice and/or tick control products	73%
vit E and Se injections	76%

## - Frequency of deworming

never	12%
once a year	9%
twice a year	42%
three times per year	36%
more then three times per year	12%

PRODUCTION INFORMATION (based on the 116 farms returning at least 3 questionnaires)

12,257 ewes lambed

18,800 lambs born (1.5 lambs/ewe)

866 lambs still born (4.6% of all lambs born)

CULLING (based on the 116 farms returning at least 3 questionnaires)

- average culling rate was: 15.7%
- percentage of culls for various reasons (as % of total):

old age	24.8%
mastitis	15.2%
lameness	2.0%
poor mother	10.9%
pneumonia	3.6%
bad teeth	1.7%
reproductive problems	9.8%
low production	15.3%
poor conformation	4.8%
other reasons	12.0%

## LAMB DISEASES

(based on the 116 farms returning at least 3 questionnaires)

disease	% of flocks affected	% of lambs sick	% of lambs dying
Starvation	75	3.7	2.4
predator attack	7	0.2	0.1
scours	34	2.8	0.7
white muscle disease	10	0.2	0.1
pneumonia	54	2.9	1.0
orf	24	4.0	0.0
foot rot	12	0.4	0.0
urinary calculi	9	0.1	0.1
pulpy kidney	13	0.3	0.3
black leg	1	0.0	0.0
external parasites	3	0.9	0.0
internal parasites	13	1.0	0.1
coccidiosis	16	2.7	0.0
other diseases	66	2.0	1.6
diagnosis unknown	42	0.9	0.8
TOTAL		22.0 %	7.2 %

## EWE DISEASES

(based on the 116 farms returning at least 3 questionnaires)

disease	% of flocks affected	% of lambs sick	% of lambs dying
abortion	46	1.4	0.2
pregnancy toxemia	19	0.5	0.2
vaginal prolapse	59	1.8	0.4
orf	18	1.5	0.0
mastitis	62	2.1	0.2
pneumonia	40	1.9	0.3
scours	10	0.7	0.0
foot rot	34	3.9	0.0
listeriosis	9	0.2	0.1
black leg	1	0.0	0.0
abscess	33	1.4	0.1
external parasites	6	2.2	0.0
internal parasites	12	2.5	0.0
predator attack	13	0.8	0.7
other diseases	53	1.8	1.0
diagnosis unknown	37	1.0	0.5
TOTAL		23.6 %	4.3 %



# FEEDING MONENSIN TO FEEDLOT LAMBS

Dr. K.J. Cheng, Rumen Microbiologist  
and Dr. J.A. Vesely, Animal Breeder

In experiments at the Lethbridge Research Station, the antibiotic monensin (Rumensin) improved feed efficiency when lambs had an infestation of coccidia. In general, feeding monensin to beef cattle and lambs has increased feed efficiency by about 10%. Some researchers have reported increased rates of weight gain as well, while others have seen no increase. The increase in feed efficiency from monensin has been attributed by these researchers to changes in rumen fermentation by increasing propionic acid production, decreasing methane production, and decreasing protein degradation.

Results from four experiments at the Lethbridge Research Station confirm feed efficiency increases of 5 to 12% when monensin was fed to naturally reared lambs. Our work suggests that monensin increases feed efficiency mainly because it controls coccidial infestations in the digestive tract.

In our experiments, monensin-fed lambs showed minor changes in propionic acid production. The monensin-fed, coccidia-free lambs raised in isolation had the largest increase in propionic acid production but these lambs showed no increase in feed efficiency. A decrease in the methane ratio of digestive gasses in the rumen also was noted in our studies of

monensin-fed, naturally reared lambs but the total production of methane was similar to that in untreated animals. Although we detected slightly higher levels of protein in the rumen fluid, we saw no significant decrease in protein degradation by microbial activity to support the suggestion that monensin increased feed efficiency by sparing protein from microbial digestion in the rumen.

However, monensin had a dramatic effect on coccidial populations in the digestive tract. Monensin cleared this parasitic protozoan from all infested animals and these same animals showed increased feed efficiency. In contrast, monensin feeding did not increase feed efficiency of coccidia-free lambs raised in isolation. Coccidial infestation tends to decrease with age in lambs. Consequently, feed efficiency from monensin is not constant from experiment to experiment.

We suggest, therefore, that the increase in feed efficiency of lambs fed monensin is attributable primarily to the control of coccidial infestation and that monensin feeding will be most effective in improving feed efficiency when lambs are infested with coccidia.

# 1984 Alberta Ram Test Station Has Record Entry

by John Knapp

Alta. Ram Test Station Manager

A record 203 rams have been entered in the 1984 Alberta Ram Test Station at Olds College. This represents an increase of 30 head over the 173 rams tested last year. A total of 142 Suffolks, 23

Hampshires, 20 Dorsets, 14 Rambouillets, 3 Polypays, and 1 North Country Cheviot have been entered on test. The Table below illustrates the growth of the station since the first test 10 years ago.

BREEDERS ON PROGRAM	SHEEP TESTED	A.D.G. SUFFOLK (Rams)	HEAD SOLD	AVERAGE PRICE	TOP PRICE
1975 12	85	.32 Kg	45	\$223.	\$ 525.
1976 7	70	.36 Kg	43	\$231.	\$ 450.
1977 14	165	.36 Kg	53	\$244.	\$ 500.
1978 16	155	.42 Kg	57	\$275.	\$1050.
1979 17	123	.49 Kg	52	\$331.	\$ 675.
1980 17	101	.48 Kg	44	\$323.	\$ 520.
1981 23	102	.48 Kg	40	\$375.	\$ 775.
1982 28	115	.47 Kg	49	\$387.	\$1100.
1983 38	173	.514 Kg	61	\$332.	\$ 750.
1984 37	203	?	?	?	?

After an 11 day adjustment period all rams go through an official 56 day growth rate test. Wool quality and backfat are also measured. A culling committee pulls out rams with incorrect teeth and legs, undersized testicles etc. and all rams are bloodtested for brucella ovis. To date all rams are growing extremely well and several look like they may set new records for average daily gain.

Approximately the top 1/3 of rams tested are eligible for entry to the Annual Ram Test Station Sale. This year the event will take place at Olds College at 1 PM, Saturday, June 30th. As in previous years the sale will be

preceded by a sumptuous lamb barbecue at 11:30 AM. Everyone welcome.

Many people have expressed regret at not being able to buy a test station ram because they could not attend the sale. Last year, to overcome this problem we instituted a program whereby we purchased rams and in some cases arranged shipment for those who could not physically attend the sale. 7 rams were purchased this way and the program worked well. This year we hope to expand our purchase program. If you are interested in buying a test station ram this way call me at (403) 948-5101. Watch for more test station news to follow.



Effects of Cold Stress on Sheep

Scientists at the University of Alberta recently studied the effect of cold stress on lactating ewes and growing lambs. These animals were exposed to either 0 C or 21 C temperature, while all other conditions were similar.

Their conclusions are:

1. Exposure of lactating ewes to 0 C resulted in 20% decrease in milk production.
2. Concentration of fat and protein in the milk were increased by cold exposure to an extent that compensated for lower milk production.
3. Udder size in ewe exposed to cold was reduced, but the activity of secretory udder

tissue was increased.

4. Lambs exposed to 0 C temperature showed 9% less preweaning growth rate than those kept at 21 C.
5. Lambs exposed to cold temperature gained 46% less during the first 11 days after weaning than those exposed to warm temperature.
6. The 0 C temperature did not affect the digestibility of drymatter (to be feed) or nitrogen (protein), but the nitrogen (protein) retention was reduced at this cold temperature.

Ref: The 61st Annual Feeder's Day Report, June, 1982.

Livestock and Dairy Produce

ENTER THE SHEEP-GOAT

Scientists have developed an animal that is neither a sheep nor a goat - but both. Known as the sheep-goat chimera, it has been bred experimentally by genetic manipulation at the Institute of Animal Physiology, Cambridge, eastern England.

The hybrid began as a lamb conceived normally by one set of parents and a kid conceived normally by another set of parents. Each of the two fertilized eggs was allowed to divide until one consisted of a microscopic sheep embryo of eight cells and other other a goat embryo, also of eight cells.

At that stage, the Cambridge researchers combined the cells of

the two species by embryo manipulation. The resulting hybrid embryo was implanted into a third parent which hosted the animal to birth.

The characteristics of the sheep-goat vary considerably. In one experiment, for instance, six out of nine youngsters were born resembling lambs, one looked like a kid and the other two had characteristics of both lambs and kids.

Scientists believe that a valuable outcome of work would be to provide a means of rescuing rare breeds from extinction by creating conditions in which the embryo of a threatened species could be reared safely in another species.

Ref: Farming News, No. 0210/4  
Edited by Margaret Laing.



## COUNTING UNBORN LAMBS BY ULTRASONIC SCAN

Ultrasonic scanning is being used to count unborn lambs as a shepherding aid at a Scottish research station.

So instead of counting sheep at night as a antidote to insomnia caused by worries of calf-sized and mouse-sized twins, flockmasters will be able to count real sheep six weeks or more before they are born - and sleep soundly at night as a result.

Counting unborn lambs has been made possible by the extension to sheep flocks of a technique - real time ultrasonic scanning - that has been used routinely for some years in human obstetrics. The system enables doctors to monitor the development and well-being of unborn babies.

Trials carried out on more than 1000 ewes show that the technique could be useful on farms to identify non-pregnant ewes and to count accurately the number of foetuses carried by pregnant ewes.

### Reflected

In real time ultrasonic

scanning, a beam of very high frequency sound - 3.5 million cycles a second - is emitted from a transducer held against the ewe's belly immediately in front of the udder. As the sound beam travels through the ewe's tissues, echoes are reflected back to the transducer. This provides an image on a visual display unit of the ewe's uterus.

The beam itself is about 100 mm wide and penetrates about 200 mm.

By moving the transducer across the ewe's underside the whole of the womb can be examined and the number of foetuses portrayed on the screen easily counted. Because the images are live the movements of the foetuses can be seen readily.

Unlike X-rays, ultrasound as used in real-time scanning is harmless to the ewe, to the unborn lambs and to the person operating the scanner.

(Further information: Hill Farming Research Organization, Bush Estate, Penicuik, Midlothian, Scotland.)

Ref: Farming News No. 0210/4.  
Edited by Margaret Laing

## Vaginal Stimulation

With increased flock reproductive rates, successful lamb grafting techniques are needed in order to graft lambs from large litters to ewes with smaller litters. The use of a grafting stanchion has been shown to be an effective grafting technique (about 85% success rate), but it is necessary to restrain the ewe in the stanchion for 4-5 days. More rapid techniques would be desirable.

Some investigation reported by four scientists from three different countries working together in France (E.B. Keverne from England, F. Levy and P. Poindran from France and D.R. Lindsay from Australia) indicate that vaginal stimulation of the ewe may be very important in triggering maternal behavior. In their first trial, 20 non-pregnant ewes were administered progesterone and

estrogen since these ovarian hormones had previously been shown to be somewhat responsible for the exhibition of maternal behavior of ewes. Twelve to 24 hours after the last hormone injection, half of the ewes received vaginal stimulation for five minutes (with a vibrator 8 inches long and 2 inches in diameter), after which they were immediately provided with a newborn lamb. Lambs were initially left with the ewes for one hour. Stimulated ewes developed the full complement of maternal behavior - licking, low-pitched bleats and very little aggression when the lamb attempted to suck. Eight of the 10 stimulated ewes developed complete adoption within an hour and emitted high-pitched bleats and became agitated when the lamb was removed. Eight of ten unstimulated ewes behaved aggressively toward the lamb, none licked the lamb, only two tolerated the lamb at the udder for short periods and none protested when the lamb was removed. Five minutes of vaginal stimulation of these formerly unstimulated ewes and return of the same lamb, induced immediate maternal behavior in a further seven of these ewes with loss of aggression, emission of low-pitched bleats and complete adoption to suckle in as little as 10 minutes.

In a second experiment, seven recently lambled ewes were given a newborn lamb in addition to their own lambs. Ewes were observed over a period of 20 minutes for the amount of attention paid to the two lambs, as measured by duration of licking. Although their own lambs were at this stage nearly dry, ewes spent approximately equal amounts of time licking both the newborn alien and their own older lamb. At no time was the alien preferred, and toward the end of the test period more attention was being

paid to her own lamb. A further seven recently lambled ewes were given an additional newborn alien lamb after five minutes of vaginal stimulation. In this case, vaginal stimulation consisted of inserting into the uterus a rubber bladder which was then inflated and maintained in place for 5 minutes before being expelled. Stimulated ewes spent considerably more time licking lambs than did the nonstimulated ewes. Stimulated ewes also preferred the newborn alien lamb almost to the exclusion of her own lamb. Ewes now spent considerably more time licking the alien lambs than they did their own.

In a third experiment, 12 ewes had their own lambs removed for 2 hours after birth and were given a newborn alien. Their behavior to the newborn alien was aggressive and disturbed. These ewes were stimulated for five minutes with the rubber bladder, and their behavior with the alien lambs was again observed. Only two ewes remained aggressive and nine showed intense licking accompanied by the emission of low-pitched bleats.

These studies indicate that vaginal stimulation is a strong inducer of maternal behavior in ewes - even non-pregnant, non-lambing ewes exhibited maternal behavior after stimulation. Just current lamb grafting techniques try to transfer the odor of the ewe's own lamb to an alien lamb in order to trick or confuse the ewe into accepting the alien. Vaginal stimulation, on the other hand, does not trick the ewe but immediately induces maternal behavior toward alien lambs. Although promising, these results need to be viewed with some caution. These studies leave some important questions unanswered. Will stimulated ewes that readily

accept alien lambs continue to accept them throughout the nursing period? Will stimulated ewes accept alien lambs that are considerably older (2 - 21 days of age) than newborns?

Ref: Sheep! Magazine, Health and Nutrition Issue 1984. pp 34 & 35.

#### Further Reading

Keverne, E.B., F. Levy, P. Poindron and D.R. Lindsay. 1982. Vaginal stimulation: an important determinant of maternal bonding in sheep. Science. Vol. 219. pp. 81-83.

### NEWS FROM LAMBCO

#### Lamb Industry Tour

On June 27, the Alberta Sheep and Wool Commission, together with Lambco, is sponsoring a retailer's tour of key facilities in the Alberta lamb industry. The tour will visit the new meat laboratory at Ag. Canada's Research Station, the Ram Test Station at Olds College and the lamb processing plant at Innisfail. An outdoor lamb barbecue will complete the day's activities.

Key meat buyers from throughout Alberta have been invited to participate in the day's events. During the tour, participants will be informed of the continual developments and innovations which are occurring at Lambco. As well, methods of improving the marketing of lamb will be discussed.

Will Verboven, Secretary Manager of the Alberta Sheep and Wool Commission, hopes the tour will increase retail meat buyers' awareness, enthusiasm and knowledge of the Alberta lamb industry. In addition, the tour will provide an opportunity for the Alberta Sheep and Wool Commission to solicit retailer support for their upcoming summer promotion.

#### New Markets

Lambco continues to give high

priority to the development of new markets for Alberta lamb. Presently Lambco is shipping 400 carcasses per week to Vancouver area Woodward's stores. Lambco is optimistic that this may develop into an on-going market for Alberta lamb. As well, Metro Richelieu, a chain of 1,200 retail stores in Quebec, may also be interested in carrying Alberta lamb on a regular basis.

#### Record Slaughter Numbers

During the year ending March 30, 97,668 sheep and lambs were processed by the Lambco plant; this figure represents a 16% increase over the previous year and a 35% increase over 1979. Over the 1983 calendar year, Lambco processed 41% of Canada's federally inspected kill.

The current year also promises to break records. During the week prior to Easter, 6,922 lambs were processed by the plant. This kill exceeds the average weekly kill by over 5,000 lambs. The staff at Lambco is to be congratulated for their extraordinary effort in processing this high number of lambs.

Ruth Salmon  
Meat and Dairy Consultant



### Progress on Red Meat Stabilization Plan

Plans to establish a national stabilization program for red meat production were further developed at a federal-provincial meeting held in February.

Joining federal Agriculture Minister Eugene Whelan were Ontario Agriculture Minister Dennis Timbrell, Alberta Agriculture Minister LeRoy Fjordbotten, Quebec Agriculture Minister Jean Garon, and Prince Edward Island Agriculture Minister Prowse Chappell. Ministers of agriculture for Manitoba, New Brunswick and Saskatchewan were represented by

Deputy Ministers. The remaining provinces were represented by senior officials.

The ministers announced they were close to final agreement on hogs and lambs. Additional work needs to be done on the three beef programs -- cow-calf, slaughter cattle and backgrounders.

NOTE: As of March 29, 1984 a "Proposed Tripartite Stabilization Programs for Red Meat Producers", which includes beef cattle, has been completed.

### Ketone Test Helps Manage Ewe Feeding

Sheep Producers can benefit from a simple test used by diabetics to determine the level of ketones in the blood. Those producers striving to manage their animals for maximum lamb production with multiple births will find the ketone test most useful in their management, according to Dr. Clell V. Bagley, D.V.M., Extension Veterinarian, Utah State University, Logan.

The simple test using kits available at local pharmacies or other ketone testing measures available at veterinary hospitals can help identify gestating ewes that are not getting adequate nutrition. Those not getting enough feed to meet their nutritional requirements will use some reserve body fat resulting in ketones showing up in their blood and urine.

Dr. Bagley said the problem is greatest among ewes that are losing weight, especially those carrying two or more fetuses. Those animals require more nutrition and

consequently are more susceptible to nutrient deficiency resulting in underweight or dead lambs. The problem can usually be corrected by providing the affected ewes with more feed.

Dr. Bagley suggests to owners of large flocks suspecting a problem that they test a few ewes to determine the general nutritional status of their flocks so correction in feeding can be made. To owners of small flocks, he suggests using the ketone test results to separate ewes and give extra feed to those that need it, especially those with multiple fetuses.

He suggests checking with the local veterinarian if there are questions regarding application of the test for ketone levels. If desired, the veterinarian could help do the tests and read the results.

From: National Wool Grower April 1982

## World Sheep & Wool Congress

Calgary, Alberta, March 26, 1984 ... The Alberta Sheep Breeders' Association will host a World Sheep and Wool Congress in conjunction with the Calgary Exhibition and Stampede from July 4 - 8, 1986 at Stampede Park, Calgary, Alberta.

Mr. Peter Conway, President of the Canadian Sheep Breeders' Association was in Calgary recently to attend the Congress Organizational Committee meeting.

This Quebec sheep breeder stated, "I see the World Sheep and Wool Congress as an excellent medium to illustrate to sheep breeders around the world the tremendous progress Canada has made in sheep genetics and wool production in the past decade. Sheep breeders all across Canada will have input into the success of the show and sale."

A scheduled one-day seminar conducted by knowledgeable speakers from several continents will concentrate on new technology in the industry. Sheep dog trials will be another highlight of the

five-day event. The show committee is looking for national, U.S., and off-shore entries for the elite two-day show. A consignment sale of selected sheep will be auctioned on Tuesday, July 8, 1986.

Congress Chairman Clarence Jones said, "This World Congress and Sale will provide a great opportunity for sheep breeders from all countries to exchange ideas, and to acquire high-potential breeding stock."

Overseas visitors will be offered pre-congress tours of breeders' flocks in east-central Canada and those arriving from the west will tour British Columbia and the Rocky mountains, culminating at the Calgary Congress Show and Sale.

For Further Information Contact:

Norma B. Dunn, Co-ordinator  
World Sheep and Wool Congress  
2504 Toronto Crescent N.W.  
Calgary, Alberta, Canada  
T2N 3V9

Telephone: (403) 282-6736  
(403) 938-7896

AL 1620

JUL 27 1984



---

# sheep notes and news

ISSUE #2, VOLUME 17, MAY - JUNE 1984

## Table of Contents

HOW TO MAKE MONEY IN THE SHEEP BUSINESS .....	1 - 3
HOSFORD NEW SHEEP TECHNICIAN .....	4
LAMB TOUR - A SUCCESS .....	4
NORTH-CENTRAL SHEEP SALES - 1984-1985 .....	5 - 7
MORE SURVEY RESULTS .....	8 - 9
SHEEP BRUCELLOSIS .....	10 - 11
NEWS FROM LAMBCO .....	11
ANNUAL SHEEP SALE .....	12
COPPER POISONING IN SHEEP .....	12 - 13
PROGRAM NEWS FROM AGRICULTURE CANADA .....	13
1984 ALBERTA RAM TEST STATION HAS RECORD YEAR .....	14 - 26

Editor: Don Scheer  
Head, Sheep & Goat Section  
7000 - 113 Street  
Edmonton, Alberta  
T6H 5T6

**Alberta**  
AGRICULTURE  
Animal Industry Division  
Beef and Sheep Branch

Phone: (403) 427-5077

DDN 37936





## HOW TO MAKE MONEY IN THE SHEEP BUSINESS

A series of timely articles intended to help producers  
improve their net income)

John Knapp-Sheep Specialist, Airdrie

### ARTICLE II

#### The Impact of Growth Rate on Profit Margin

Most sheep producers acknowledge growth rate is a highly important economic trait. They realize that slower growing lambs require more feed (or grass) to get to market. By hard experience they also know that the price drop in a falling market can cost them \$10/lamb in as short a time as 2 weeks.

Most sheep breeds fall into 2 major classes - the whitefaced or "mother" breeds and the blackfaced or "terminal sire" breeds. ("Terminal sire" implies that all of a ram's offspring are destined for slaughter. These

offspring should inherit fast growth rate and desirable carcass qualities from their sire.)

The table below outlines the growth rates of the 6 breeds tested at the 1984 Alberta Ram Test Station. The weighted average growth rate for the terminal sire breeds (Suffolk and Hampshire) is .541 Kg/day. The average for the 4 whitefaced breeds is .431 Kg/day - a difference of .11 Kg or about a quarter lb/day. Let's take this difference of .11 Kg/day and work out what impact it might have on our profit margin.

### 1984 ALBERTA RAM TEST STATION

#### BREED AVERAGES

<u>BREED</u>	<u>A.D.G.</u>
SUFFOLK	.550 Kg/day
HAMPSHIRE	.484 Kg/day
DORSET	.415 Kg/day
RAMBOUILLET	.451 Kg/day
POLYPAY	.448 Kg/day
N. C. Cheviot	.450 Kg/day

Assuming a lamb is 5 Kg at birth and we market him at 50 Kg liveweight we are putting on 45 Kg gain. To put this gain on a pure whitefaced lamb would take 45 Kg / .431 Kg/day = 104 days. To put this gain on a pure terminal sire breed lamb would take 45 Kg / .541 Kg/day = 83 days. The difference is 21 days to market.

A lamb in the 40-50 Kg liveweight range will easily consume 2 Kg of feed per day. If

this feed costs 13¢/Kg it costs us about 26¢ per day to keep this lamb. If we have to keep him 21 days longer it costs us 26¢ X 21 = \$5.46 extra feed to get him to market - and of course we lose \$5.46 profit!

Now many producers have good reasons for wanting to maintain a whitefaced ewe flock - out of season lambing ability, flocking instinct, smaller ewe size, hardiness, longevity, wool yield and quality etc.

Assuming therefore that these producers might only be interested in crossing their whitefaced ewes with terminal sires they would be producing lambs which grew at a rate intermediate between the 2 breed types. The savings in feed costs therefore would be one half of the \$5.46 or \$2.73. In a flock of 500 ewes producing 1000 lambs annually (there's no money in the sheep business lambing at less than 200%!) the saving would amount to an astonishing \$2730!

There is a further advantage to crossing with terminal sire breeds. Producers who lamb in the winter are under real pressure to get their lambs marketed as early as possible. By early summer when the supply of lamb is plentiful and consumer demand has lessened, the price plunges like a rocket. As you can see from the table below, last summer the price at Lambco fell \$.14/lb in one 10 day period. Pure whitefaced lambs require 11-14 days longer than

Suffolk or Hampshire cross lambs to get to market. Each 110 lb lamb marketed at the lower price therefore costs \$15.40 income loss!

In a flock producing 1000 lambs annually of which 850 are marketed, the potential income loss from producing these slower growing pure whitefaced lambs would be  $850 \times \$15.40 = \$13,090$ . More realistically, if we assume a producer gets caught marketing only 40% or 340 of his lambs after the price drop the real loss in income would still amount to a staggering \$5236!

To add insult to injury the producer may discover when he attempts to market these slower growing lambs that the plant is now fully booked and cannot take delivery for a month. He loses another \$2652 in additional feed costs and \$1875 in price penalties for over-weight lambs!

#### PRICE RANGE FOR LAMBS SOLD IN ALBERTA (LAMBCO)

	CURRENT MONTH July 83	LAST MONTH June 83
WEEK 1	58.00-60.00	71.00-73.00
WEEK 2	55.00-57.00	72.00-74.00
WEEK 3	55.00-57.00	72.00-74.00
WEEK 4	55.00-57.00	62.00-64.00
WEEK 5	55.00-57.00	-----
MONTHLY AVERAGE	55.60-57.60	69.25-73.75

Of course improving growth rate does not automatically mean crossbreeding. At the 1984 Alberta Ram Test Station the top end of whitefaced rams grew much faster than the bottom end of Suffolk and Hampshire rams. These

faster growing whitefaced rams would have been better choices for terminal sires than the bottom end of the terminal sire breeds. It could be a serious mistake therefore to buy a terminal sire simply on the basis of his face



colour. Rather, purchase a ram on the basis of his growth rate because such a large percentage of this highly heritable trait is transmitted to his offspring. If a ram has gone through a test station we know exactly how he stacks up for growth rate compared to the other rams and can buy accordingly. If buying privately, we should ask to see R.O.P. records and choose a ram with a growth rate index well over 100 indicating he has grown much faster than the average ram in the flock.

Having said we should buy a terminal sire on the basis of growth rate rather than breed, the odds are heavy that in the vast majority of cases a Suffolk or Hampshire ram will do the job best. Assuming therefore that improving growth rate in large whitefaced commercial flocks means

crossing with a blackfaced ram we have one final economic advantage to consider. Clearly, nature intended animals to crossbreed as widely as possible because she provides a large bonus for this in the form of improved fitness. This improved fitness is generally called hybrid vigor or heterosis and has been carefully measured in sheep by geneticists all over the world. As a general rule when we compare crossbred lambs born to purebred ewes against purebred lambs born to those same ewes we find 3% more crossbred lambs survive in the womb and 8-14% more crossbred lambs survive between birth and weaning. If we value lambs at \$70 each and very conservatively estimate the crossbred advantage at only 5% more lambs marketed, we still discover heterosis has produced an unexpected bonus of \$2975 in additional income!

#### SUMMARY - IMPACT OF USING FASTER GROWING TERMINAL SIRES

FEED SAVING FROM FEWER DAYS TO MARKET	\$ 2,730
FASTER GROWING LAMBS HIT MARKET BEFORE PRICE DROPS	\$ 5,236
SLOWER GROWING LAMBS HIT PLANT WHEN FULLY	
BOOKED REQUIRING ONE MONTH HOLD OVER:	
- EXTRA FEED FOR 30 DAYS	\$ 2,652.
- PRICE PENALTIES FOR OVERWEIGHT LAMBS	\$ 1,875.
HETEROSIS FROM CROSSBREEDING	\$ 2,975.
TOTAL YEARLY IMPACT	\$15,468.

Clearly, if you are not using fast growing terminal sires in your whitefaced commercial flock, you owe it to yourself to try them. The \$15,468 above is a realistic estimate of the impact growth rate might have on your profit margin each year. If even half of this difference

materializes, over a twelve year period it still amounts to an incredible 1/10 of a million dollars!

For you as a sheep producer this could mean the difference between prosperity and failure.

### HOSFORD NEW SHEEP TECHNICIAN

Susan Hosford, a sheep producer in the Edberg area, has been hired by Alberta Agriculture as the sheep technician for the Edmonton east area which was previously handled by Bruce McGhan. Susan brings to the position a wealth of knowledge and experience in raising purebred and commercial sheep. She has been an active member of the Provincial Sheep R.O.P. Advisory Committee and for several years Alberta's producer representative on the

National Sheep R.O.P. Advisory Board. She is presently completing a two year term as chairman of the Animal Industry Advisory Committee's sheep sub-committee. Susan can be contacted at her farm at 877-2226.

Bruce McGhan is now working as technician in the Edmonton west area replacing Cal Mitchell. Bruce can be contacted at 985-3744 or 985-3881.

### LAMB TOUR - A SUCCESS

Over 110 key retailers, wholesalers, media and local politicians met together on June 27 in Innisfail for an all day tour of Alberta's lamb industry. Sponsored by the Alberta Sheep and Wool Commission and Lambco, the tour visited the new meat laboratory at Ag. Canada's Research Station, the Ram Test Station at Olds College and the lamb processing plant at Innisfail. An outdoor lamb barbeque completed the day's activities.

During the tour, participants were informed of the continual

developments and innovations occurring at Lambco and of the upcoming summer lamb promotion campaign.

Both Geoff de Boer, Chairman of the ASWC Promotion Committee and Jim Coughlan, General Manager of Lambco were very pleased with the positive feedback they received from the meat managers. "Public relations events of this nature help to continually increase our sales and build support with Alberta retailers," said Mr. Coughlan.

### QUALITY-OF-LIFE CONSTANT

Each time you think you are about to be able to make ends meets, somebody moves the ends.

# NORTH-CENTRAL SHEEP SALES - 1984-1985

Commercial Sheep Sales are scheduled to serve lamb processors in Northern and Central Alberta. At two of them, grade ewes will also be offered. All sales will be held at the Edmonton Public Stockyards with the exception of a show and sale for registered ewes and ram which will be held on Edmonton Northlands Grounds during Northlands Farmfair '84. This sale

will be held at 3:30 p.m. Saturday, November 3rd. ENTRIES CLOSE FOR THIS SALE SEPTEMBER 7th, 1984.

THE DEADLINE FOR ALL NORTH-CENTRAL SHEEP SALE DELIVERIES IS 9:00 a.m. AT EACH SALE. THERE IS NO GUARANTEE THAT SHEEP BROUGHT IN AFTER 9:00 a.m. will be sold at the Sale and those that are sold can be subject to 3% shrink.

## SALE DATES

Thursday, June 7th - Fat and Feeder Lambs  
 Thursday, June 21st - Fat and Feeder Lambs  
 Thursday, July 19th - Fat and Feeder Lambs  
 Thursday, August 2nd - Fat and Feeder Lambs  
 Thursday, August 16th - Fat and Feeder Lambs  
 Thursday, August 30th - Fat and Feeder Lambs  
 Thursday, September 13th - Fat and Feeder Lambs  
 Thursday, September 27th - Grade Ewes, Fat and Feeder Lambs  
 Thursday, October 11th - Fat and Feeder Lambs  
 Thursday, October 15th - Grade Ewes, Fat and Feeder Lambs  
 Thursday, November 9th - Fat and Feeder Lambs  
 Thursday, November 22nd - Fat and Feeder Lambs  
 Thursday, December 6th - Fat and Feeder Lambs

## 1985

Thursday, January 10th - Fat and Feeder Lambs  
 Thursday, January 24th - Fat and Feeder Lambs  
 Thursday, February 14th - Fat and Feeder Lambs  
 Thursday, March 7th - Fat and Feeder Lambs  
 Thursday, March 28th - Fat and Feeder Lambs  
 Thursday, April 18th - Fat and Feeder Lambs  
 Thursday, May 9th - Fat and Feeder Lambs  
 Thursday, June 6th - Fat and Feeder Lambs

EWE LAMBS: Ewe lambs will be offered in special lots as breeding stock at the September 27th and October 25th sales, provided the owner marks them differently from the rest of the animals he has entered in the Sale and informs the staff upon arrival with his sheep. These ewe lambs must be finished and of good quality and should weigh more than 100 lbs.

1984 NORTHLANDS FARMFAIR - Judging purebred sheep will be held at 9:00 a.m. Friday, November 2nd. Auction Sale of Purebred Ewes, Grade Ewes and Purebred Rams, Saturday, November 3rd at 3:30 p.m. All these events will be held in Northlands AgriCom Building, Edmonton Northlands Grounds. Entries close September 7th, 1984. Contact the Livestock Division, Edmonton Northlands, Box 1480,



Edmonton, Alberta T5J 2N5 or phone for further information on Northlands Farmfair to 471-7210.

There is a strong demand for feeder lambs at all sales. Finished lambs offered in large numbers at the North-Central Sheep Sales will enable Packers and order buyers to make purchases for shipment to the Vancouver and Toronto markets and thus assist in keeping Edmonton Lamb prices in line with those at other lamb marketing centres in Canada.

PLEASE NOTE: PRODUCERS ARE ADVISED TO PLEASE INFORM THE SECRETARY TWO OR THREE DAYS IN ADVANCE OF EACH SALE AS TO JUST HOW MANY LAMBS THEY ARE BRINGING TO THE SALE. THE ORDER BUYERS AND PACKING PLANTS CANNOT DO AN EFFICIENT JOB IN MARKETING YOUR PRODUCT UNLESS THEY ARE ABLE TO INFORM PROSPECTIVE BUYERS IN ADVANCE ON THE NUMBER OF LAMBS TO BE OFFERED AT EACH SALE. Phone Edmonton Public Stockyards Toll Free Number 1-800-252-9387 for Sales Office at 473-5776.

The Commission realized from these sales, which is paid to North-Central Sheep Sales, is directed toward the publicity of further North-Central Sheep Sales, paper supplied for circular letters, stamps, marking paint and also for wages to those members of the Committee who faithfully donate their time to the sales each year. The assistance of the producer in helping these Committee members with the sorting of their lambs is greatly appreciated.

NOTE: THE DEADLINE FOR SHEEP DELIVERIES AT ALL SALES IS 9:00 a.m. THERE IS NO GUARANTEE THAT SHEEP BROUGHT IN AFTER 9:00 a.m. will be sold at the Sale and those that are sold can be subject to 3% shrink. Those producers arriving after 9:00 a.m. with sheep at these sales are requested to market them through the Edmonton Public

Stockyards rather than North-Central Sheep Sales as they may have to be marketed the following week through the regular Stockyards System. THE COMMITTEE REQUEST THAT CONTRIBUTORS OF THE LARGE CONSIGNMENTS (30 head or more) BRING THEIR SHEEP TO THE STOCKYARDS THE AFTERNOON BEFORE THE SALE SO THAT A MORE EFFICIENT JOB OF SORTING CAN BE DONE. This will ensure that North Central Sheep Sales Committee and the Edmonton Public Stockyards will have time to mark and weigh all the sheep prior to sale time.

Purchasers at all sales must have established a line of credit with the Edmonton Public Stockyards, be an Order Buyer or carry a bank letter of credit.

PLEASE NOTE: producers are asked to carefully read item #1, FOOT ROT, under the heading "SHEEP SALE DETAILS AND REGULATIONS".

#### SHEEP SALE DETAILS & REGULATIONS

1. FOOT ROT: A veterinarian representing the Alberta Department of Agriculture Veterinary Services Branch and Veterinary personnel representing the Canada Department of Agriculture, Health of Animal Branch, will be on hand to inspect all sheep arriving at all Sales. This is not a guarantee that ALL Foot Rot animals will be detected. For the September 27th and October 25th Sheep Sales where Foot Rot is suspected, the producer involved will have two choices:

- (a) Take the sheep home and treat them under quarantine
- (b) Sell them for slaughter.

NOTE: All sheep sold through the Sales will have to be loaded out of one or two designated chutes: Sheep will be required to go through a special formaldehyde solution mixed with shavings at these chutes in order that the buyer may receive

some protection against the possibility of his sheep being in contact with foot rot carrier sheep. THIS RULE WILL BE STRICTLY ENFORCED.

2. Consign your sheep to Edmonton Public Stockyards, Edmonton, Alberta.

3. All Feeder lambs should be docked and castrated early. Any ewe lambs with tails will not be sold for breeding.

4. Ewes and lambs will be sorted into groups according to quality, age and breeds, where possible, in lot sizes to suit all buyers.

5. Contributors are requested to assist with the sorting of their ewes, otherwise a charge for this service may have to be made. The sorting time can be speeded up if the seller is on hand to assist with the grouping and marking of his sheep.

6. North Central Sheep Sales charges will be 5¢ per head on all lambs and 50¢ per head on all ewes and rams.

7. Producers, especially those with large consignments, are urged to bring their sheep to the Stockyards the afternoon or evening before the sale. This will mean higher prices for lambs because they are shrunk out and also there will be no danger of sheep having to be sold privately because they were late for the sale. All information on distance travelled and time of arrival of lambs at the Stockyards, will be announced in the ring.

#### CARE OF INFECTED SHEEP

- Trim all overgrown part of each hoof.
- Pare all ragged or separated horn and sole. Remove all horn or sole covering infected areas and pockets.
- Pare a little diseased tissue at a time until you have removed every

pocket, crevice and crack from the infected foot. Cut off all tissue that has separated from the foot and all tissue that shows evidence of infection.

- Probe carefully for hidden or deep pockets of infection. If necessary, cut healthy tissue to reach the infected areas. After trimming, re-examine the foot to make sure all diseased tissue has been removed.

FOOTBATH: Use 10% formalin or 20% copper sulfate solution to depth of 4" in trough. Sheep should move through the foot bath very slowly (five minutes per sheep for the treatment to be effective). Make sure that sheep do not hold one foot out of the bath. Do not allow sheep to run through the bath. After treatment hold sheep in a concrete or wooden drain pen for several minutes. Then remove them to clean pasture that has been free from sheep for two weeks. Keep them isolated from the convalescent group and the clean group. Repeat treatment every day for two weeks. If it is possible, place the foot bath where sheep will have to go through the troughs of disinfectant to reach their normal feeding area. Set up panels or fences to prevent sheep from jumping over or going around the troughs. With such an arrangement, sheep seldom have to be driven through the bath. For larger flocks, use a trough 8" wide, 8" deep and 10' long.

For additional information on North-Central Sheep Sales, contact:

Will Verboven, Secretary-Manager  
Alberta Sheep & Wool Commission  
Box 1530  
STONY PLAIN, Alberta T0E 2G0  
(Ph: 963-4343)

R.W. Shopland  
11916 - 129 Street  
EDMONTON, Alberta T5L 1G6  
(Ph: 455-2287)

### MORE SURVEY RESULTS

The statistics branch of Alberta Agriculture has recently released results of a sheep survey conducted last spring. Here are the results of that survey.

1. The number of sheep producers in Alberta was estimated to have declined by 15% from the 1981 census results to 1,984.

2. Sheep and lamb numbers averaged 134 per farm.

3. Lamb crops varied from region to region. The average lambing percentage was 151%.

4. Data on the number of ewes bred and on marketings suggested a possible increase in inventories, marketings and slaughterings in 1984.

5. The majority of sheep and lamb marketed were delivered directly to auction marts, stockyards and packing plants between July and

December. Direct shipments out of Alberta were few.

6. The average farm lost about 15 sheep and lambs in 1983, or about 11% of its inventory.

7. Suffolk was the predominant breed.

#### Producers and inventories

The number of producers in the province was estimated at 1,984. This represented a 15 percent decline from the results of the 1981 census of agriculture. The average producer responding to the survey had close to 15 years of experience in sheep rearing.

Sheep and lamb inventories averaged 134 per farm, with a range of 59 (Region 5) to 234 (Region 1). While these survey figures appear to be high when compared to the 1981 census figures, the census also includes producers with one or two sheep.

### Producer Numbers and Average Flock Size

	<u>Number of producers</u>		<u>Average years of Experience</u>	<u>Average flock size</u>	
	<u>Survey estimate</u>	<u>1981 Census</u>		<u>Survey</u>	<u>1981 census</u>
Region 1	348	393	17.8	234	205
2	285	327	14.7	110	89
3	305	360	14.2	136	68
4	294	371	12.6	115	45
5	555	646	14.3	59	54
6	197	235	11.6	101	66
Province	1,984	2,332	14.8	134	86



Sheep and Lamb Marketings

	Average Sales		Deliveries to		All other	
	per farm		packers, stockyards		auction markets	
					deliveries	
	<u>1983</u>	<u>1984</u>	<u>1983</u>	<u>1984</u>	<u>1983</u>	<u>1984</u>
	- number -		- percent -			
Region 1	196	259	81	82	19	18
2	92	104	82	86	18	14
3	85	121	77	73	23	27
4	89	65	80	86	20	14
5	43	49	69	77	31	23
6	84	94	83	83	17	17
Province	106	130	80	81	20	19

---

Note: Figures for 1984 are projected.

Projected marketing data for 1984 indicated an identical delivery pattern to 1983, with the possibility of an increase in sales per farm in all regions.

The majority of feeders and

fat lambs were marketed in the third and fourth quarters of 1983. Indications are that this pattern will be maintained in 1984, although it is probable that a larger percentage will be sold in the first two quarters.

Lamb Marketings by Quarter

<u>Quarter</u>	1983		1984	
	<u>Feeders</u>	<u>Fat Lambs</u>	<u>Feeders</u>	<u>Fat Lambs</u>
Jan. - Mar.	1.5	5.1	6.5	11.8
Apr. - June	16.2	19.5	22.5	24.9
July - Sept.	35.4	40.4	35.5	32.0
Oct. - Dec.	46.9	35.0	35.5	31.3

---

## SHEEP BRUCELLOSIS

W.N. Harries  
Regional Veterinary Laboratory  
Lethbridge, Alberta

Brucellosis in sheep is a disease which occurs in most countries of the world and was first recognized in Alberta in 1973. It is now thought to be widespread in the province and its results in usually mild reductions in lambs crops. Brucella ovis (B. ovis), the cause of the disease, is a different bacterium from the Brucella abortus of cattle brucellosis.

The disease is also known as ram epididymitis since it primarily affects a part of the testicle known as the epididymis. Diseased testicles are frequently abscessed, swollen and firm and can be detected by experienced stockmen and veterinarians. It should be borne in mind that not all diseased rams have palpably abnormal testicles and also that testicular disease may be caused by organisms other than B. ovis. Nevertheless brucellosis should be suspected when testicular disease is found and especially if a number of rams are so affected. Treatment is unsatisfactory.

Diseased rams excrete the organism in the semen sometimes for a number of years. They tend to have decreased fertility and therefore in a undiagnosed flock, the lamb crop will be smaller and more spread out than expected. If the owner is aware of the disease and wishes to compensate, the purchase of additional, costly rams is necessary. The ewe is important because she transmits infection between rams at breeding. The ewe may also but apparently very infrequently, become a carrier, infecting healthy rams the season after she herself became infected. Occasionally ewes are infected while pregnant and they may then abort or produce weak lambs.

Producers who are concerned about brucellosis in sheep should keep the following points in mind:

1. Prospective purchasers of rams should be aware of the disease; they might ask that selected animals be blood-tested.
2. New and replacement rams should be segregated from older potentially infected rams especially during the prebreeding period because, during homosexual activity which is often frequent at such times, infection will pass directly from ram to ram.
3. Infection is most commonly spread when a diseased ram services a ewe and she, at the same or at a subsequent estrus, is served by a healthy ram.
4. Brucellosis can be controlled satisfactorily in commercial operations by the detection and slaughter of diseased ram coupled with the separation of clean rams from older animals which, despite careful examination, might still be infected. Detection is achieved by the palpation of testicles and by examining semen for inflammatory cells and for B. ovis. The blood test currently used is the complement-fixation (CF) test and, while it has certain limitations, it is of definite value when the results are interpreted in conjunction with the clinical examination of rams and with the flock history. While reliable tests e.g. the ELISA are currently under development.
5. Eradication should be the goal in purebred flocks and more detailed attention to the aforementioned steps is necessary. Rams should be examined more frequently

and throughout the year. Above all, multiple breeding is to be avoided so that valuable, clean rams do not breed ewes which might have been in contact with infected rams. Feeding of antibiotics to ram lambs during susceptible periods has been advocated as an additional means of control.

6. A vaccine is available but it is of uncertain efficacy and while

it may be of use in commercial operations, it should be used with caution by breeders as it interferes with the blood testing necessary for eradication.

The foregoing is a broad outline of brucellosis in sheep. Further information may be obtained from practicing veterinarians who work with sheep and from Alberta Agriculture veterinarians and sheep specialists.

#### NEWS FROM LAMBCO

Jim Coughlan, Plant Manager of Lambco, reports a continuation of the good market for Alberta lambs which we have seen since October, 1983. Prices and slaughter numbers are both higher than last years. He hopes this augurs well for the balance of 1984.

Mr. Coughlan comments that the summer is traditionally a poor volume period for all fresh meats including lamb. The summer period is also the time for the heaviest

deliveries of lambs to Lambco. Lambco is doing everything possible to prevent a backlog but producers are urged to keep in touch with Randy Westegard at Lambco.

Mr. Coughlan commends the Sheep and Wool Commission for the recent retailers' tour. Events such as this help him sell more to his existing customers. These increased sales, combined with new customers, have helped him move the 30% more lambs slaughtered at Lambco to date this year.

#### DID YOU KNOW?

	<u>Alberta</u>	<u>Ontario</u>	<u>Quebec</u>	<u>Canada</u>
Number of lambs slaughtered 1983	93,622	55,329	64,705	227,801
Percent of National slaughter	41.1	24.3	28.4	100%
Average warm dressed weight (lb)	47.2	40.5	35.7	42.3
Number of lambs slaughtered 1979	32,963	36,504	13,984	92,825
Percent National slaughter	35.5	39.3	15.1	100%
Average warm dressed weight (lb)	48.1	44.3	38.2	42.5



## ANNUAL SHEEP SALE

### DUBOIS

The U.S. Sheep Experiment Station has scheduled Thursday, September 20, 1984 for the ANNUAL SURPLUS SHEEP SALE. The sale will begin at 9:30 a.m. at the Station headquarters, six miles north of Dubois, Idaho. The traditional offerings of Rambouillet, Targhee, Columbia, Polypay and Finnecross sheep will again be available. Only quality animals will be offered for sale.

The availability of complete performance animals on the basis of performance records. Performance information is provided for reproductive, growth and wool traits

A strict preventative health program is followed at the station. Sale rams are serologically negative for Brucella ovis and palpably free of epididymitis lesions. Ewes are vaccinated for EAE/Vibrio. All station sheep are free of footrot.

A preliminary 1984 sale catalogue will be available on request by September 1. Anyone wanting additional information or desiring their name to be added to the sale mailing list may write or call the U.S. Sheep Experiment Station, Dubois, Idaho 83423, or phone: (208) 374-5306.

## COPPER POISONING IN SHEEP

Alberta sheep producers would be wise to consult an animal nutritionist before making up a feed ration for their sheep.

This advice comes from Dr. A.W. Perry of Alberta Agriculture's animal disease section who believes that copper poisoning could become an increasing problem in sheep because they are sometimes fed cattle rations that have been supplemented with copper. This element is now being added to an increasing proportion of cattle feeds in Alberta because it has been found that some of these feeds contain lower than the optimum level of copper for cattle.

Dr. Perry reports that chronic copper poisoning was diagnosed in three sheep flocks in central Alberta last summer, and that the

problem in the three cases appeared to have been caused by an excessive amount of copper in a concentrate that was being fed. Losses were heavy in all the flocks.

Dr. Perry is worried about copper poisoning in sheep because many sheepmen do not know that copper is being added to cattle feed and because they do not know that sheep are more susceptible to copper poisoning than other animal species.

He says chronic copper poisoning has two distinct phases. In the first, the copper accumulates in the animal's liver and there are no clinical signs of anything being wrong. In the second, the sheep suddenly stop eating, become very depressed and are either found dead or die within

a few days of the onset of symptoms. Dr. Perry says the mortality rate in sheep showing clinical signs of copper poisoning is normally nearly 100 percent.

Since the symptoms of copper poisoning are similar to those of other conditions and diseases, anyone who suspects that his flock may be suffering from it should consult his veterinarian who will confirm his diagnosis with a

laboratory analysis.

And anyone who thinks that his flock may need a copper supplement should contact an animal nutritionist, a sheep specialist or a veterinarian to confirm that the supplement is needed and to make sure that the correct level is added. The correct level will be influenced by the other nutrients that are in the ration.

#### PROGRAM NEWS FROM AGRICULTURE CANADA

##### 1. Cabinet approves red meat stabilization proposal :

Cabinet has approved in principle a new stabilization program for Canadian producers for lamb, beef and pork.

Legislation amending the existing Agricultural Stabilization Act is now being drafted and will be presented to Parliament later this year.

Key features of the proposed program include:

- provinces and producers may join the program on a voluntary basis;
- the federal government, participating producers and provinces will contribute equal amounts of money to an actuarially-sound stabilization fund.
- separate plans will be offered for cow-calf producers, beef backgrounders, slaughter cattle, hogs and sheep.
- payments will be made from the stabilization fund when market prices fall below the national support levels.

The new red meat stabilization program will have two major objectives. The first is to give participating producers an adequate level of protection from sudden drops in prices. The second objective is to replace provincial

stabilization plans which are leading to the "balkanization" of the industry.

##### 2. Proposed changes to western grain stabilization program :

Proposed amendments to the Western Grain Stabilization Program were announced during April. to give the program more flexibility and make it more responsive to the needs of grain producers.

The following key changes were outlined at a press conference by Agriculture Minister Eugene Whelan and Senator Hazen Argue, Minister of State or the Canadian Wheat Board in Winnipeg;

- incorporation of an additional payment trigger mechanism based on net cash flow per unit of eligible marketings to make the program more sensitive to price and cost variations during period of increasing marketing;
- changing the operational basis of the program from a calendar year to a crop year (August 1 - July 31) period;
- make spouses who meet other conditions as point permit book holders eligible for multiple participant status under the Act; and
- providing an opportunity for participants to withdraw from the program once every ten years.

# 1984 ALBERTA RAM TEST STATION HAS RECORD YEAR

By: John Knapp  
Sheep Specialist  
Airdrie, Alberta

A large crowd of nearly 200 buyers and spectators was on hand June 30 at Olds College for the 10th Annual Alberta Ram Test Station barbecue and sale - held in the College's beautiful new sheep barn.

With the reserve bid set at \$200, all of the record number of 72 rams offered for sale found buyers as record gross receipts of \$27,640 were obtained. The top indexing ram which was from the Suffolk flock of Mr. Lloyd Pickard of Olds, Alberta had a ten year station record average daily gain of .693 kg/day and sold for \$625. The high priced ram at the sale, from the Olds College purebred

Suffolk flock had an average daily gain of .681 kg/day and sold for a record high price of \$1500 to Agriculture Canada. This ram was one of a group of 7 outstanding animals placed by Agriculture Canada in the ram A.I. collection centre operated by United Breeders at Guelph Ontario. Other out of province sales included 22 rams to British Columbia and 1 to Oregon.

A record total of 203 rams from 37 contributors were entered on test this year. As the table below indicates, individual rams from 4 different breeds established new 10 year test station records.

## RECORD GROWTH RATES

### 10 YEARS OF TESTING AT ALBERTA RAM TEST STATION

SUFFOLK	PICKARD 1984	.693 Kg/day
HAMPSHIRE	CECCATO 1983	.637 Kg/day
DORSET	FRANCIS 1984	.503 Kg/day
COLUMBIA	TRENTAM 1978	.480 Kg/day
N.C. CHEVIOT	STEPHEN 1983	.458 Kg/day
CORRIEDALE	GRAY 1983	.471 Kg/day
RAMBOUILLET	OLDS COLLEGE 1984	.519 Kg/day
POLYPAY	BALDERSON 1984	.481 Kg/day

Of special note is the great improvement in A.D.G. made by Suffolk and Dorset breeds, increasing their breed averages from .514 Kg/day last year to .550 Kg/day this year and from .371 Kg/day last year to .415 Kg/day this year respectively. Only rams above the station

average for A.D.G. for their breed are considered for sale each year. A Culling Committee further rejects rams with incorrect teeth, legs, testicles, etc. from this group so that this year only 35% of the animals tested eventually made the sale.



The following is a summary of 1984 Ram Test Station Results:

BREED	NUMBER TESTED	A.D.G. KG/DAY	NO. SOLD	AVERAGE PRICE	HIGH PRICE
SUFFOLK	142	.550	51	\$376.	\$1500.
HAMPSHIRE	23	.484	7	\$311.	\$ 520.
DORSET	20	.415	6	\$474.	\$ 775.
RAMBOUILLET	14	.451	6	\$412.	\$ 475.
N.C. CHEVIOT	1	.450	1	\$450.	\$ 450.
POLYPAY	3	.448	1	\$500.	\$ 500.

The following is a summary of test station results since the 1st test season in 1975:

BREEDERS ON PROGRAM	SHEEP TESTED	A.D.G. SUFFOLK (RAMS)	HEAD SOLD	AVERAGE PRICE	TOP PRICE
1975 12	85	.32 Kg	45	\$223.	\$ 525.
1976 7	70	.36 Kg	43	\$231.	\$ 450.
1977 14	165	.36 Kg	53	\$244.	\$ 500.
1978 16	155	.42 Kg	57	\$275.	\$1050.
1979 17	123	.49 Kg	52	\$331.	\$ 675.
1980 17	101	.48 Kg	44	\$323.	\$ 520.
1981 23	102	.48 Kg	40	\$375.	\$ 775.
1982 28	115	.47 Kg	49	\$387.	\$1100.
1983 38	173	.514 Kg	61	\$332.	\$ 750.
1984 37	203	.550 Kg	72	\$384.	\$1500.

Test station organizers wish to thank everyone involved in making the year and the sale such a success. With continued enthusiasum and support of the type evidenced this year, the 1985 season should be another good one for the Alberta Ram Test Station.

Anyone interested in submitting rams for a 1984 yearling test should contact John Knapp, Sheep Specialist, Bag Service #1, Airdrie, Alberta, T0M 0B0. Phone (403) 948-5101.

## 1984 ALBERTA RAM TEST STATION RESULTS

## SUFFOLK RAMS

OWNER	RAM I.D.	STN EAR TAG	A.D.G. (K.G.)	A.D.G. INDEX	G.R.* BACK FAT (MM)	FINAL STATUS OR SALE PRICE	WOOL GRADE	WOOL QUALITY
KURE, Gordon RR 1, Innisfail, TOM 1A0 728-3361	IXJ 24S IXJ 69S IXJ 53S IXJ 62S IXJ 30S IXJ 22S IXJ 15S IXJ 8S	9 24 25 26 27 28 29 30	.490 .614 .550 .590 Pulled off test - .626 .640 .558	89 112 100 107 14 114 116 101	15 20 17 14 18 16 21	Cull-A.D.G. Cull-testicles 1/4 \$220 Cull-testicles 1/4 rectal prolapse \$600 \$650 Cull-teeth	1/4 Bright 1/4 1/4 Bright 1/4 Bright 3/8 Bright	Clean Some black on legs Clean Clean Clean Clean
PASTICHNEY, Dennis Box 162, Redwater, T0A 2W0 942-4537	MLN 16S MLN 27S MLN 23S MLN 15S	10 11 12 13	.548 .572 .549 .552	100 104 100 100	12 16 17 18	Cull-A.D.G. \$225 Cull-A.D.G. Cull-legs	1/4 Bright	Clean
KERSHAW, Glen & Annette Box 342 Didsbury, TOM 0W0 335-4983	MZB 6S MZB 4S MZB 13S MZB 12S MZB 9S MZB 10S MZB 3S	14 15 68 69 70 71 179	.457 .568 .501 .500 .398 .407 .518	83 103 91 91 72 74 94	14 15 18 17 15 14 15	Cull -A.D.G. Cull-legs Cull-A.D.G. Cull-A.D.G. Cull-A.D.G. Cull-A.D.G. Cull-A.D.G.	3/8 Bright	Clean
MODIN, Nelson 21557 Wye Rd Ardrossan, T0B 0E0 922-2461	MOD 1S	23	.419	76	13	Cull-A.D.G.		

\* G.R. Backfat measurement employs the New Zealand method. See attached explanation Rams are not fatter than in previous years. G.R. measurement produces figures 2 - 2½ times greater than for rams of comparable condition measured under old backfat system.

## SUFFOLK RAMS (Continued)

OWNER	KAM I.D.	STN EAR TAG	A.D.G. (K.G.)	A.D.G. INDEX	BACK FAT (MM)	FINAL STATUS OR SALE PRICE	WOOL GRADE	WOOL QUALITY
COSTENS, Roy Box 236 Morris, TOL 2B0 772-2260	COS 10S COS 11S COS 6S COS 12S COS 15S COS 26S COS 27S COS 34S COS 48S COS 40S COS 49S COS 47S	31 32 33 34 35 92 93 94 167 168 169 170	.596 .518 .564 .583 .557 .578 .624 .546 .518 .543 .597 .536	108 94 103 106 101 105 113 99 94 99 109 97	17 19 18 15 18 14 17 15 16 19 16 19	\$375 Cull-A.D.G. Cull-1legs Cull-1legs Cull-1legs Cull-1legs \$550 Cull-A.D.G. Cull-A.D.G. Cull-A.D.G. Cull-teeth Cull-A.D.G.	1/4 Bright  3/8 Bright   1/4 Bright 3/8 Bright	Some Black on legs  Clean  Some black on legs Black wool - neck & legs
SEABORN, Tom Box 1870 Rocky Mtn. House TOM 1T0 729-2267	SLU 42S SLU 11S SLU 24S SLU 64S SLU 53S SLU 36S SLU 17S SLU 46S SLU 77S SLU 57S SLU 73S SLU 56S SLU 76S	39 40 41 42 43 44 45 46 83 84 85 86 87	.565 PULLED OFF TEST .554 .493 .612 .562 .491 .568 .550 .529 .559 .536 .557	103 101 90 111 102 89 103 100 96 102 97 101	17 20 17 18 15 16 15 20 22 16 21 17	HOME (1) Bladder infection \$200 Cull-A.D.G. \$300 \$200 Cull-A.D.G. \$225 \$200 Cull-A.D.G. \$200 Cull-A.D.G. \$200	3/8 Bright 1/2 Bright 1/2 Bright  3/8 Bright  3/8 Bright 3/8 Bright 3/8 Bright 3/8 Bright 3/8 Bright	Excess black on legs Some black on legs Some black on legs  Some black on legs Some black on legs Excess black on legs Excess black on legs Excess black on legs
INGRATTA, Mike RR 2 Okotoks, TOL 1T0 938-7812	PMI 8S	47	.644	117	17	\$750	1/4 Bright	Clean
HARDY, Tom RR 2 Okotoks, TOL 1T0 937-7812	PMI 2S	48	.513	93	20	Cull-A.D.G.		

HOME (1) Ram passed both A.D.G. cull and physical cull but breeder opted to take home - usually for breeding purposes.  
HOME (2) Ram passed A.D.G. cull but breeder opted to take home prior to physical cull.

cull - usually for breeding purposes.



## SUFFOLK RAMS (Continued)

OWNER	RAM I.D.	STN EAR TAG	A.D.G. (K.G.)	A.D.G. INDEX	BACK FAT (MM)	FINAL STATUS OR SALE PRICE	WOOL GRADE	WOOL QUALITY
STEVENSON, George & Marg Box 1, Site 10, RR 5 Calgary, T2P 2G6 273-5756	SMJ 1S SMJ 9S SMJ 3S	49 50 51	.497 .563 .494	90 102 90	20 20 22	Cull-A.D.G. Cull-teeth Cull-A.D.G.	3/8 Bright	Some black on legs
STRAND, Walt SSL-3-63 Lethbridge, T1J 4B3 327-9306	WDS 28S WDS 37S WDS 15S WDS 27S WDS 10S WDS 5S WDS 102S WDS 24S WDS 32S WDS 62S WDS 26S WDS 81S WDS 12S WDS 6S WDS 48S WDS 84S WDS 97S	55 56 57 58 59 60 125 126 127 128 129 130 131 132 133 134 135	.508 .498 .619 .535 .547 .545 .624 .635 .431 .539 .438 .542 .522 .493 .580 .526 .577	94 91 113 97 99 99 113 115 78 98 80 99 95 90 105 96 105	18 15 19 16 15 18 17 24 18 18 21 19 17 18 22 23 22	Cull-A.D.G. Cull-A.D.G. Cull-scrotal hernia Cull-A.D.G. Cull-A.D.G. Cull-A.D.G. \$500 \$400 Cull-A.D.G. Cull-A.D.G. Cull-A.D.G. Cull-A.D.G. Cull-A.D.G. HOME (1) HOME (1) Cull-A.D.G. \$220	3/8 Bright 3/8 Bright	Clean Clean
SUDON FARMS (HOSFORD) Box 97 Edberg TOB 1J0 8/7-2226	MTK 1S MTK 60S MTK 11S MTK 82S MTK 113S MTK 116S MTK 106S	61 62 63 138 139 140 141	.541 .624 .569 .632 .497 .638 .579	98 113 103 115 90 116 105	19 17 19 16 19 20 18	Cull-A.D.G. HOME (2) \$250 \$650 Cull-A.D.G. \$450 \$310	1/4 Bright 3/8 Bright 3/8 Bright 1/4 Bright	Some black on legs Minimum black on legs Excess black on legs Minimum black on legs
MARLER, Reg 53301 Rge Rd 231 Sherwood PK T8A 4V2 467-3179	NBM 42S NBM 3S	65 66	.531 .495	97 90	21 17	Cull-A.D.G. Cull-A.D.G.		

## SUFFOLK RAMS (Continued)

OWNER	RAM I.D.	STN EAR TAG	A.D.G. (K.G.)	A.D.G. INDEX	BACK FAT (MM)	FINAL STATUS OR SALE PRICE	WOOL GRADE	WOOL QUALITY
MARLER, Darcy 53301 Rge Road 231 Sherwood Park T8A 4V2 467-3179	OKL 124S	67	.515	93	17	Cull-A.D.G.		
CADSAND, Dave Box 572 Rimby, T0C 2J0 843-3537	LHH 25S LHH 56S LHH 20S LHH 58S LHH 72S LHH 61S LHH 45S LHH 55S	75 76 77 98 99 100 101 108	.475 .522 .467 .538 .642 .552 .579 .690	86 95 85 98 117 100 105 125	15 18 16 19 23 22 19 18	Cull-A.D.G. Cull-A.D.G. Cull-A.D.G. Cull-A.D.G. \$525 \$200 HOME (1) \$500	3/8 Bright 3/8 Bright 1/4 Bright 3/8 Bright 3/8 Bright 1/4 Bright 1/4 Bright	Clean Clean Some black on legs Clean Clean Some black on legs Clean
LYSTER, Patric Box 376 Vilna, T0A 3L0 636-2007	NIO 18S NIO 17S NIO 6S NIO 12S NIO 34S NIO 43S NIO 25S	88 89 90 154 155 156 157	.588 .586 .649 .468 .611 .567 .603	107 107 118 85 111 103 110	21 20 19 19 15 17 15	Cull-legs \$250 \$600 Cull-A.D.G. \$380 \$200 Cull-teeth	1/4 Bright 1/4 Bright 3/8 Bright 3/8 Bright 3/8 Bright 1/4 Bright	Excess black on legs Clean Some black on legs Clean Some black on legs Some black on legs
CADSAND, Gordon Box 603 Rimby, T0C 2J0 843-6802	GLC 38S GLC 18S GLC 30S	95 96 97	.571 .563 .558	104 102 101	18 17 18	\$240 Cull-teeth \$225	3/8 Bright 3/8 Bright 1/4 Bright	Excess black throughout fleece Clean Clean
JORDAN, Rod Box 23 Rimby, T0C 2J0 843-6763	RBS 8S	105	.512	93	21	Cull-A.D.G.		

SUFFOLK RAMS (Continued)

OWNER	RAM I.D.	STN EAR TAG	A.D.G. (K.G.)	A.D.G. INDEX	BACK FAT (MM)	FINAL STATUS OR SALE PRICE	WOOL GRADE	WOOL QUALITY
CADSDAND, Dan Box 672 Rimbey, T0C 2J0 843-6253	OSV 72S OSV 69S	106 107	.616 .519	112 94	17 15	\$500 Cull-A.D.G.	1/4 Bright	Clean
GRAB, Wally Box 401 Rimbey, T0C 2J0 843-6792	WGG 86S WGG 93S WGG 74S WGG 76S WGG 60S WGG 71S	109 110 111 112 113 114	.574 .499 .558 .601 .541 .652	104 91 101 109 98 119	23 21 18 20 21 21	\$250 Cull-A.D.G. \$200 \$320 Cull-A.D.G. Cull-testicles	1/4 Bright 1/4 Bright 3/8 Bright 3/8 Bright 1/4 Bright	Clean Excess black on legs Some black on legs Clean
LAKELAND COLLEGE (Sandra Soderberg- Sheep Technician) Vermilion Campus Vermilion, TOB 4M0 853-2971	ONS 69S	121	.529	96	18	Cull-A.D.G.		
MADSEN, Neils & Anne Box 1202 Drumheller, T0J 0Y0 823-9158	OND 53S OND 72S	122 123	.605 .606	110 110	21 17	Cull-legs \$300	3/8 Bright 3/8 Bright	Some black on legs Some black on legs
RAVEN, Mark Box 1093 Morinville, T0G 1P0 973-6979	DRF 14S DRF 7S DRF 11S DRF 12S DRF 22S DRF 23S	136 137 201 202 203 204	.516 .517 .580 .511 .409 .459	94 94 105 93 74 83	21 19 19 17 17 18	Cull-A.D.G. Cull-A.D.G. \$275 Cull-A.D.G. Cull-A.D.G. Cull-A.D.G.		Clean
LEDS COLLEGE (Barry Wilson- Sheep Technician) Oids, T0M 1P0 556-8267	OCL 104S OCL 87S OCL 109S OCL 76S OCL 182S	143 145 146 147 205	.563 .593 .681 Died 4th day at station .561	102 108 124 104	19 26 21 14	\$200 \$375 \$1500 HOME (2)	1/4 Bright 1/4 Bright 3/8 Bright	Clean Excess black on legs Clean



SUFFOLK RAMS (Continued)

OWNER	NAME I.D.	STB EAR TAG	A.D.G. (K.G.)	A.D.G. INDEX	BACK FAT (MM)	FINAL STATUS OR SALE PRICE	WOOL GRADE	WOOL QUALITY
PICKARD, Lloyd Box 747 Olds, TOM 1FG 556-6732	SMS 15S SMS 23S SMS 21S SMS 24S SMS 39S SMS 3S SMS 26S	160 161 162 163 164 165 166	.693 .539 .673 .607 .644 .480 .556	126 98 122 110 117 87 101	17 18 24 21 16 17 15	\$625 Cull-A.D.G. \$825 \$375 \$550 Cull-A.D.G. \$200	1/4 Bright Some black on legs 3/8 Bright 1/4 Bright 3/8 Bright 3/8 Bright 3/8 Bright	Some black on legs Some black on legs Some black on legs Excess black on legs Some black on legs
JONES, Clarence Box 42 Dewinton, TOL 0X0 938-7896	JXW 133S JXW 26S JXW 29S JXW 56S JXW 62S JXW 122S	183 184 185 186 187 188	.586 .564 .606 .542 .464 .567	107 103 110 99 84 103	20 15 19 19 15 22	\$340 \$230 \$375 Cull-A.D.G. Cull-A.D.G. \$200	1/2 Bright 3/8 Bright 3/8 Bright 3/8 Bright 3/8 Bright 3/8 Bright	Some black on legs Clean Clean Clean Clean Clean
ELLIS, Barbara Box 650 Grimsshaw, TOH 1W0 596-2282	GWY 11S GWY 20S CWY 28S	189 190 191	.612 .611 .582	111 111 106	16 16 15	HOME (1) Cull-legs \$280	3/8 Bright 3/8 Bright 1/4 Bright	Clean Clean Clean
RUTLEY, Howard Box 1168 Didsbury, TOM 0W0 335-4523	JFZ 4S	192	.581	106	18	\$240	1/4 Bright	Some black on legs
JAMES, Laura & David Whiskey Hill Rd RR 1 Okotoks, TOL 1T0 938-7634	WHF 5S WHF 3S	193 194	.433 .449	79 82	13 16	Cull-A.D.G. Cull-A.D.G.		
STEPHEN, Marian RR 7 Calgary, T2P 2G7 936-5463	LKB 56S LKB 6S LKB 49S LKB 42S LKB 45S	196 197 198 199 200	.544 .369 .408 .570 .464	99 67 74 104 84	19 15 16 20 15	Cull-A.D.G. Cull-A.D.G. Cull-A.D.G. Cull-A.D.G. Cull-A.D.G.		Clean

DORSET RAMS

OWNER	RAM I.D.	STN EAR TAG	A.D.G. (K.G.)	A.D.G. INDEX	BACK FAT (MM)	FINAL STATUS OR SALE PRICE	WOOL GRADE	WOOL QUALITY
FRANCIS, Bob M & J Ranch Gen Del Priddis, TOL. TWO 931-2258	RMJ 971R RMJ 972R RMJ 974R RMJ 978R RMJ 973R RMJ 977R RMJ 976R RMJ 975R	1 2 3 4 5 6 7 8	.478 .417 .388 .443 .462 .503 .459 .428	115 100 93 107 111 121 111 103	19 17 19 15 19 17 13 15	Cull-1-legs Cull-testicles Cull-A.D.G. \$470 \$775 HOME (1) \$425 \$350	3/8 Bright 1/4 Bright  1/4 Bright 1/4 Bright 3/8 Bright 1/4 Bright	Clean Clean  Clean Clean Clean Clean Clean
WAGAR, Richard & Phyllis RR 5 Metaskiwin, T9A 1X2 352-3439	WRP 278R WRP 305R WRP 287R WRP 296R WRP 301R WRP 302R WRP 279R	16 17 18 19 20 21 22	.318 .432 PULLED .435 .403 .394 .364	77 104 OFF TEST 105 97 95 88	18 19 - 21 18 20 17	Cull-A.D.G. \$400 Bladder Infection Cull-1-legs Cull-A.D.G. Cull-A.D.G. Cull-A.D.G.	3/8 Bright 3/8 Bright 3/8 Bright	Some hair on legs Some hair on legs
SEABORN, Tom Box 1870 Rocky Mtn. House TOM 170 729-2267	SLU 34S SLU 30S	36 37	.461 PULLED	111 OFF TEST	19	\$425 RECTAL PROLAPSE	3/8 Bright	Clean
LYSTER, Patric Box 376 Vilna, T0A 3L0 636-2007	PDN 16S PDN 20S PDN 22S	91 158 159	.418 .310 .364	101 75 88	15 13 15	RECTAL PROLAPSE Cull-A.D.G. Cull-A.D.G.	3/8 Bright	Some hair on legs

HAMPSHIRE RAMS

OWNER	RAM I.D.	STN FAR TAG	A.D.G. (K.G.)	A.D.G. INDEX	BACK FAT (MM)	FINAL STATUS OR SALE PRICE	WOOL GRADE	WOOL QUALITY
MARLER, Reg 53301 Rge Rd 231 Sherwood PK T8A 4V2 467-3179	NBM 162S	64	.452	93	15	Cull-A.D.G.		
CALDSAND, Dave Box 572 Kimbey, T0C 2J0 843-3537	LKA 26S LKA 49S LKA 34S LKA 52S LKA 46S LKA 62S LKA 41S	72 73 74 78 102 103 104	.525 .482 .426 .373 .479 .562 .477	108 100 88 77 99 116 99	20 22 20 22 17 23 18	\$520 Cull-A.D.G. Cull-A.D.G. Cull-A.D.G. Cull-A.D.G. Cull-teeth Cull-A.D.G.	1/4 Bright	Some black on legs
GRAB, Chris Box 143 Hay Lakes, T0B 1W0 672-7350 941-3927	CBG 33S CBG 35S CBG 23S CBG 17S CBG 26S CBG 27S	115 116 117 118 119 120	.534 .465 .524 .490 .456 .438	110 96 108 101 94 90	19 23 19 15 18 19	\$220 Cull-A.D.G. HOME (1) \$225 Cull-A.D.G. Cull-A.D.G.	1/4 Bright 1/4 Bright 3/8 Bright	Some black on legs Excess black on legs
MADSEN, Neils & Anne Box 1202 Drumheller, T0J 0Y0 823-9158	OND 55S	124	.503	104	30	HOME (2)		
NEWMAN, Peggy Box 9 Blackie, T0L 0J0 652-7488	NNM 88S	142	.533	110	17	\$240	1/2 Bright	Clean



HAMPSHIRE RAMS (Continued)

OWNER	RAM I.D.	STN EAR TAG	A.D.G. (K.G.)	A.D.G. INDEX	BACK FAT (MM)	FINAL STATUS OR SALE PRICE	WOOL GRADE	WOOL QUALITY
CECCATO, Vivian RR 3 Eckville TOM OXO 746-5633	VMC 13S VMC 12S VMC 4S VMC 3S VMC 2S VMC 10S VMC 1S	171 172 173 174 175 176 177	.352 .536 .433 .542 .594 .353 .614	73 111 89 112 123 73 127	13 15 18 18 26 14 19	Cull-A.D.G. \$275 Cull-A.D.G. Cull-teeth \$400 Cull-A.D.G. \$300	1/4 Bright  3/8 Bright  3/8 Bright	Excess black on legs  Some black on legs  Excess black on legs

## RAMBULLIFT RAMS

OWNER	RAM I.D.	STN EAR TAG	A.D.G. (K.G.)	A.D.G. INDEX	BACK FAT (MM)	FINAL STATUS OR SALE PRICE	WOOL GRADE	WOOL QUALITY
JACKSON, Robert & Amy Box 443 Didsbury, TOM 0M0 335-4348	NLU 68S NLU 76S NLU 137S NLU 12S NLU 52S NLU 73S NLU 59S	79 80 81 82 180 181 182	.445 .426 .455 .400 .433 .468 .461	99 94 101 89 96 104 102	16 14 16 13 17 15 13	Cull-A.D.G. Cull-A.D.G. \$470 Cull-A.D.G. Cull-A.D.G. \$475 Cull-legs	Fine      Fine	Clean      Clean
OLDS COLLEGE (Barry Wilson- Sheep Technician) Olds, TOM 1P0 556-8267	OCL 23S OCL 117S OCL 90S OCL 84S OCL 106S OCL 102S OCL 68S	144 148 149 150 151 152 153	.437 .471 .519 .454 .484 .389 .470	97 104 115 101 107 86 104	15 19 15 18 16 13 18	Cull-A.D.G. \$450 \$300 HOME (1) \$400 Cull-A.D.G. \$375	1/2 Bright Fine Fine Fine Fine Fine Fine	Clean Clean Clean Clean Clean Clean Clean

POLYPAY RAMS

OWNER	RAM I.D.	STN EAR TAG	A.D.G. (K.G.)	A.D.G. INDEX	BACK FAT (MM)	FINAL STATUS OR SALE PRICE	WOOL GRADE	WOOL QUALITY
-------	----------	-------------------	------------------	-----------------	---------------------	-------------------------------	---------------	-----------------

BALDERSON, John	8335	52	.440	98	18	Cull-A.D.G.	1/2 Bright	Clean
Box 643	8337	53	.481	107	21	\$500		
Magrath,	8339	54	.423	94	15	Cull-A.D.G.		
TOK 1J0								
758-6392								

NORTH COUNTRY CHEVIOT RAMS

OWNER	RAM I.D.	STN EAR TAG	A.D.G. (K.G.)	A.D.G. INDEX	BACK FAT (MM)	FINAL STATUS OR SALE PRICE	WOOL GRADE	WOOL QUALITY
-------	----------	-------------------	------------------	-----------------	---------------------	-------------------------------	---------------	-----------------

STEPHEN, Bill	EAN 3S	195	.450	100	12	\$450	3/8 Bright	Clean
RR 7								
Calgary,								
T2P 2G7								
936-5463								



AL 11/80

SEP 10 1984



---

# sheep notes and news

---

VOLUME 17, ISSUE #3, 1984

## Table of Contents

USING HIGH NITRATE FEEDS .....	1 - 2
CORRECTION .....	2

1984 ALBERTA RAM TEST STATION SALE .....	3 - 7
------------------------------------------	-------

### FROM THE RESEARCH BENCH

Animal Scientists Develop Early Pregnancy Test .....	8
------------------------------------------------------	---

LAMB MILK REPLACER FIELD TRIAL .....	9 - 10
--------------------------------------	--------

WHAT VALUE IS A DOG? .....	11
----------------------------	----

ALBERTA FLEECE WOOL COMPETITION .....	12
---------------------------------------	----

CANADIAN CO-OPERATIVE WOOL GROWERS .....	13
------------------------------------------	----

Editor: Don Scheer  
Head, Sheep & Goat Section  
7000 - 113 Street  
Edmonton, Alberta  
T6H 5T6

Phone: (403) 427-5077

**Alberta**

AGRICULTURE

Animal Industry Division  
Beef and Sheep Branch

---

DDN 37936



# USING HIGH NITRATE FEEDS

D.F. Engstrom, P.Ag.  
Ruminant Nutritionist  
A.S.F.T.L. Sept/84.

Many farmers are aware of the fact that drought stress this year has caused an accumulation of nitrate in cereal crops harvested for greenfeed or silage. Once representative samples from your feed supply have been tested for nitrate, you can then decide the

best method of using these feeds. There are several methods used by feed labs in Alberta to report the level of nitrate in feeds. Be certain of the method of reporting your feeds before using the following table.

<u>Method of Reporting</u>				<u>Comments</u>
	<u>% NO<sub>3</sub></u>	<u>% NO<sub>3</sub>-N</u>	<u>% KNO<sub>3</sub></u>	
Less than	0.5	0.12	0.81	Generally "safe" with no adverse effect on performance expected.
	0.5-1.0	0.12-0.23	0.81-0.163	CAUTION - may cause reduced growth or milk production, possibly a few abortions.
Greater than	1.0	0.23	1.63	<u>HIGH NITRATE FEED</u> - expect reduced growth and milk production, abortions, death loss.

How do nitrates poison livestock? Nitrates in the feed are converted by rumen microbes into nitrites. Nitrites are absorbed into the bloodstream of the animal and change the oxygen transporting hemoglobin molecules into methemoglobin. Methemoglobin cannot transport oxygen from the lungs to body tissues. Therefore, "nitrate poisoning" is in fact suffocation. When nitrate poisoning is suspected, call your veterinarian immediately.

Although research has shown that the nitrate levels that cause reduced performance and death loss are highly variable, for practical purposes, it is best to play it safe. The recommendations for using HIGH NITRATE FEEDS (HNF) are given with this in mind.

- 1) HNF should be fed with feeds that contain little or no nitrate so that the overall ration is in the safe zone (less than 0.5% NO<sub>3</sub>-). An example of this would be to feed about 15 pounds of grass hay containing no nitrate with about 7 pounds of greenfeed containing 1.5% NO<sub>3</sub>-. The grass hay should be fed first to prevent the hungry, aggressive cow from consuming more than the safe amount of greenfeed. A silage sample containing 3.0% NO<sub>3</sub>- could be used in a finishing ration for feeders at the rate of 15% of total dry matter to produce an overall ration that would have a level of .45% NO<sub>3</sub>- (3.0% NO<sub>3</sub> x .15 = .45% NO<sub>3</sub>-).



Due to the high level of nitrates in many feeds this year, many farmers will be forced to feed rations that fall into the "CAUTION" range for nitrate levels. The following comments apply to rations that contain 0.5 to 1.0%  $\text{NO}_3^-$ .

2. Research has shown that methemoglobin, the molecule that cannot transport oxygen in the blood, peaks at a much higher (and more dangerous) level when one large meal of HNF is consumed as opposed to several smaller meals spread throughout the day. Therefore consider feeding the same total amount of feed in 2 or 3 offerings rather than all at once.
3. The microbes in the rumen adapt with time to high levels of nitrate and reduce the rate of converting nitrate to

nitrites. Therefore, if possible, feed a ration with around 0.3 to 0.5%  $\text{NO}_3^-$  for two weeks before going on to a higher level.

4. If rations that approach 1.0% nitrate are being fed then eliminate urea from the ration and provide supplemental protein from a plant source.
5. Many of the problems associated with HNF are often due to reduced feed intake. Monitor feed intake as well as you can and adjust the nutrient content of your rations to insure that the nutrient needs of your animals are met. Vitamin A should be increased by 50% if rations high in nitrates must be fed.

Detailed recommendations are available from your Regional Livestock Supervisor.

#### CORRECTION

In the May-June, 1984 issue of Sheep Notes and News, the dates for the North-Central Sheep Sales were listed on page 5.

The last sale in October and the first sale in November were dated incorrectly they should read:

THURSDAY, OCTOBER 25th - Grade ewes, fat and feeder lambs  
 THURSDAY, NOVEMBER 8th - Fat and feeder lambs

1984 ALBERTA RAM TEST STATION SALE - June 30 - OLDS COLLEGE

LOT	STATION EARTAG NUMBER	BREEDER	BREED	INDEX	BIRTH TYPE	PRICE	BUYER
1	160	Lloyd Pickard Box 747 Olds, Alta TOM 1P0 556-6732	Suffolk	126	2	\$ 625.	R. A. Mc Kinnon Box 339 Dalemead, Alta TOJ OVO 936-5480
2	177	Vivian Ceccato RR 3 Eckville, Alta TOM OX0 746-5633	Hampshire	127	2	\$ 300.	T. G. Meikle 21416 32 Ave Langley, B.C. V3A 7R2 (604) 530-5006
3	108	Dave Cadsand Box 572 Rimbey, Alta TOC 2J0 843-3537	Suffolk	125	3	\$ 500.	Agriculture Canada (For United Breeders A.I. unit Guelph, Ontario) Contact Jim MacLeod (519) 821-2150
4	146	Olds College Olds, Alta TOM 1P0 556-8267	Suffolk	124	2	\$1500.	Agriculture Canada (For United Breeders A.I. unit Guelph, Ontario) Contact Jim MacLeod (519) 821-2150
5		Vivian Ceccato RR 3 Eckville, Alta TOM OX0 746-5633	Hampshire	123	2	\$ 400.	Agriculture Canada (For United Breeders A.I. unit Guelph, Ontario) Contact Jim MacLeod (519) 821-2150
6	162	Lloyd Pickard Box 747 Olds, Alta TOM 1P0 556-6732	Suffolk	122	2	\$ 825	Denice Van Den Brink RR 1 Blackfalds, Alta TOM OJ0 885-5161
7	90	Patric Lyster Box 376 Vilna, Alta TOA 3L0 636-2007	Suffolk	118	2	\$ 600.	S. Hosford Box 97 Edberg, Alta TOB 1J0 877-2226
8	47	Mike Ingratta Poplar Point Farms RR #2 Okotoks, Alta TOL 1T0 938-7812	Suffolk	117	2	\$ 750.	Doug Knight Site 8, Box , RR 1 Creston, B.C. VOB 1G0 (604) 428-4577

LOT	STATION EARTAG NUMBER	BREEDER BREEDER	BREED	INDEX	BIRTH TYPE	PRICE	BUYER
18	125	Walt Strand SS1-3-63 Lethbridge, Alta T1J 4B3 327-9306	Suffolk	113	1	\$ 500.	Agriculture Canada (Research Station Lethbridge, Alta) contact John Vesely 327-4561
19	106	Dan Cadsand Box 672 Rimbey, Alta TOC 2J0 843-6253	Suffolk	112	2	\$ 500.	Barry Nield RR 1 Okotoks, Alta TOL 1T0 938-5855
20	172	Vivian Ceccato RR 3 Eckville, Alta TOM OX0 746-5633	Hampshire	111	2	\$ 275.	C. Osborne Box 958 Valleyview, Alta TOH 3N0 521-2011
21	5	Bob Francis Gen. Del. Priddis, Alta TOL 1W0 931-2258	Dorset	111	2	\$ 775.	Agriculture Canada (For United Breeders A.I. unit Guelph, Ontario) Contact Jim MacLeod (519) 821-2150
22	36	Tom Seaborn Box 1870 Rocky Mtn. House TOM 1T0 729-2267	Dorset	111	2	\$ 425.	Agriculture Canada (Research Station Lethbridge, Alberta) contact John Vesely 327-4561
23	7	Bob Francis Gen. Del. Priddis, Alta TOL 1W0 931-2258	Dorset	111	2	\$ 425.	Agriculture Canada (Research Station Lethbridge, Alberta) contact John Vesely 327-4561
24		WITHDRAWN					
25	43	Tom Seaborn Box 1870 Rocky Mtn. House TOM 1T0 729-2267	Suffolk	111	1	\$ 300.	P. Preston Box 67 Hays, Alta TOK 1B0 725-2152
26	155	Patric Lyster Box 376 Vilna, Alta TOA 3L0 636-2007	Suffolk	111	2	\$ 380.	Dan Buzogan Patricia, Alta TOJ 2K0 378-4655
27	115	Chris Grab Box 143 Hay Lakes, Alta TOB 1W0 672-7350	Hampshire	110	1	\$ 220.	John Doig 21414 32 Ave. Langley, B.C. V3A 7R2 (604) 530-5006



LOT	STATION EARTAG NUMBER	BREEDER BREEDER	BREED	INDEX	BIRTH TYPE	PRICE	BUYER
38	151	Olds College Olds, Alta TOM 1P0 556-8267	Rambouillet	107	2	\$ 400.	Agriculture Canada (For United Breeders A.I. unit Guelph, Ontario) Contact Jim MacLeod (519) 821-2150
39	53	John Balderson Box 643 Magrath, Alta TOK 1J0 758-6392	Polypay	107	2	\$ 500.	Helmut Peters Box 156 Bragg Creek, Alta TOL OK0 274-2364
40	183	Clarence Jones Box 42 Dewinton, Alta TOL OX0 938-7896	Suffolk	107	2	\$ 340.	F. Godberson Box 208 Barrhead, Alta TOG OE0 674-5775
41	89	Patric Lyster Box 376 Vilna, Alta TOA 3L0 636-2007	Suffolk	107	1	\$ 250.	Fred Sohm Box 127 Dixonville, Alta TOH 1EO 971-2408
42	191	Barbara Ellis Box 650 Grimshaw, Alta TOH 1W0 596-2282	Suffolk	106	2	\$ 280.	Ed Klassen Box 217 Linden, Alta TOM 1J0 546-3046
43	192	Howard Rutley Box 1168 Didsbury, Alta TOM OW0 335-4523	Suffolk	106	2	\$ 240.	W. Welby Mayerthorpe, Alta TOE 1N0 786-4383
44		WITHDRAWN					
45	201	Mark Raven Box 1093 Morinville, Alta TOG 1P0 973-6979	Suffolk	105	2	\$ 275.	Sonia Schwanko RR 1 Fort Sask., Alta T8L 2N7 998-2822
46		WITHDRAWN					
47	141	Sudon Farms Box 97 Edberg, Alta TOB 1J0 877-2226	Suffolk	105	2	\$ 310.	A & D Koppel RR 2 Dawson Creek, B.C. V1G 4E3 (604) 759-4761

LOT	STATION EARTAG NUMBER	BREEDER BREEDER	BREED	INDEX	BIRTH TYPE	PRICE	BUYER
57	8	Bob Francis Gen. Del. Priddis, Alta TOL 1W0 931-2258	Dorset	103	2	\$ 350.	T. G. Meikle 21416 - 32 Ave. Langley, B.C. V3A 7R2 (604) 530-5006
58	63	Sudon Farms Box 97 Edberg, Alta TOB 1J0 877-2226	Suffolk	103	2	\$ 250.	Dan Buzogan Patricia, Alta TOJ 2K0 378-4655
59	46	Tom Seaborn Box 1870 Rocky Mtn. House TOM 1T0 729-2267	Suffolk	103	1	\$ 225.	L. W. Demille & Sons Box 267 Morris, Alta TOJ 2B0 772-2106
60	188	Clarence Jones Box 42 Dewinton, Alta TOL 0X0 938-7896	Suffolk	103	2	\$ 200.	John Doig 21416 - 32 Ave Langley, B.C. V3A 7R2 (604) 530-5006
61	156	Patric Lyster Box 376 Vilna, Alta TOA 3L0 636-2007	Suffolk	103	1	\$ 200.	B. P. Beadman Bonanza, Alta TOH 0K0 335-2600
62		WITHDRAWN					
63	184	Clarence Jones Box 42 Dewinton, Alta TOL 0X0 938-7896	Suffolk	103	3	\$ 250.	F. Godberson Box 208 Barrhead, Alta TOG 0E0 674-5775
64	143	Olds College Olds, Alta TOM 1P0 556-8267	Suffolk	102	2	\$ 200.	John Doig 21416 - 32 Ave Langley, B.C. V3A 7R2 (604) 530-5006
65	44	Tom Seaborn Box 1870 Rocky Mtn. House, Alta TOM 1T0 729-2267	Suffolk	102	1	\$ 200.	John Doig 21416 - 32 Ave. Langley, B.C. V3A 7R2 (604) 530-5006

LOT	STATION EARTAG NUMBER	BREEDER BREEDER	BREED	INDEX	BIRTH TYPE	PRICE	BUYER
75	195	Bill Stephen RR 7 Calgary, Alta T2P 2G7 936-5463	N. C. Cheviot	100	2	\$ 450.	Don Kessi Harlan Route Box 267 Blodgett, Oregon USA 97376 (503) 438-4256
76	100	Dave Cadsand Box 572 Rimbey, Alta T0C 2J0 843-3537	Suffolk	100	2	\$ 200.	John Doig 21416 - 32 Ave. Langley, B.C. V3A 7R2(604) 530-5006 (604) 530-5006
77	25	Gordon Kure RR 1 Innisfail, Alta T0M 1A0 728-3361	Suffolk	100	2	\$ 220.	John Doig 21416 - 32 Ave. Langley, B.C. V3A 7R2 (604) 530-5006
78	83	Tom Seaborn Box 1870 Rocky Mtn. House T0M 1T0 729-2267	Suffolk	100	2	\$ 200.	John Doig 21416 - 32 Ave Langley, B.C. V3A 7R2 (604) 530-5006

The following is a summary of 1984 Ram Test Station Results:

BREED	NUMBER TESTED	A.D.G. KG/DAY	NO. SOLD	AVERAGE PRICE	HIGH PRICE
SUFFOLK	142	.550	51	\$376.	\$1500.
HAMPSHIRE	23	.484	7	\$311.	\$ 520.
DORSET	20	.415	6	\$474.	\$ 775.
RANBOUILLET	14	.451	6	\$412.	\$ 475.
N.C. CHEVIOT	1	.450	1	\$450.	\$ 450.
POLYPAY	3	.448	1	\$500.	\$ 500.



## From The Research Bench



1.

### ANIMAL SCIENTISTS DEVELOP EARLY PREGNANCY TEST

Clifton Anderson  
Agricultural Communications Centre  
University of Idaho

COLUMBIA, Mo. -- Cattle producers could increase their calf crops by using an early pregnancy test developed at the University of Idaho, according to Carla A. Ruder, UI animal science research associate. Speaking to the annual meeting of the American Society of Animal Science, Ruder said the successful procedure for pregnancy detection in cattle has led to development of a similar test for sheep.

The new test detects pregnancy in cattle as early as 24 day after conception. Palpation, the test most commonly used by cattle producers, is not reliable diagnostic tool until 45 days of pregnancy have elapsed, the Idaho researcher said.

The pregnancy test is targeted

at a protein called "protein B" which is present in a cow's blood only during pregnancy, Ruder said. The testing procedure is done by means of a double antibody radioimmunoassay. To make pregnancy testing as simple as possible, University of Idaho researchers are working toward developing a test kit that could be used by cattle producers.

The accuracy of the pregnancy test for cattle has demonstrated in a series of field test, Ruder said.

The pregnancy test now being developed for sheep is concerned with a blood antigen similar to protein B found in the blood of cows, Ruder said. Research data indicates that the test is "an accurate and accepted means for diagnosis of pregnancy in sheep," she reported.

Second Law of Sociogenetics - The law of heredity is that all undesirable traits come from the other parent.

# LAMB MILK REPLACER FIELD TRIAL

by John Knapp  
Sheep Specialist  
Alberta Agriculture, Airdrie

In January, 1984 Dr. Arnold Pierce of Prairie Micro-Tech Inc. supplied Alberta Agriculture with 60Kg of "Wet Nurse" a new lambs milk replacer his company had formulated. A previous lamb milk replacer trial (see Sheep Notes and News, Issue #3, 1982) had compared "Land O'Lakes" brand against two domestic milk replacers and had strongly confirmed the independent observations of many sheep producers that "Land O'Lakes" was a much superior product. Using Land O'Lakes as the standard therefore, cooperators Gordon and Goodie Kure were asked to assess the performance of orphan lambs reared on Wet Nurse. The lambs were divided into two groups and offered the milk replacers free choice, cold (4-8°C). All other environmental influences on the two groups were the same.

## Growth Rate

The tables below provide individual growth rates and group averages. Essentially no difference was observed in the mean growth rates for the lambs on the two treatments (Group I -  $.377 \pm .033$  kg Group II -  $.402 \pm .027$  kg;  $P=.512$ ). The growth rates produced by both milk replacers were quite acceptable from the cooperators' viewpoint.

## Mixing and Feeding Instructions

Poor wording on the label regarding mixing instructions, weaning procedure and treatment of lambs with scours were discussed with the manufacturer. He has promised a new label which corrects these problems so that mixing and feeding instructions are now very clear.

### -----NURSERY GROUP I - LAND O'LAKES-----

LAMB I.D.	24	25	28	51
SEX	M	F	M	M
A.D.G. (kg)	.442	.332	.320	.392
SEX CORRECTED	.442	.355	.320	.392
A.D.G. (kg)				

Group sex corrected A.D.G. .377 kg

### NURSERY GROUP II - WET NURSE

LAMB I.D.	75	86	87	88	103	106
SEX	F	M	F	F	M	M
A.D.G. (kg)	.322	.435	.417	.474	.364	.295
SEX CORRECTED	.345	.435	.446	.507	.364	.316
A.D.G. (kg)						

Group sex corrected A.D.G. .402 kg

### Mixing Qualities

Both Wet Nurse and Land O'Lakes mixed very satisfactorily with an electric kitchen mixer. Both products produced a mix of acceptable consistency for feeding through artificial nipples.

### Odour

Both products produced pleasant acceptable odours on reconstituting. The previous field trial as well as observations from many producers had identified a very foul rancid odour on reconstituting one of the other domestic brands.

### Settling Experiment

Approximately 8 litres of each of the 2 brands were placed in containers and left overnight in a refrigerator. Both products produced less than 1 mm of sediment although the colour of the Wet Nurse sediment was slightly darker. The previous trial had identified sediment levels of 5-10 mm for the two other domestic brands. This means that where baby lambs are self-fed from large containers a considerable amount of the nutrients in the mix would settle out resulting in both insufficient and imbalanced nutrient intake. Wet Nurse's very low amount of settling should not cause this problem.

### Fat Level

Wet Nurse brand, like Land O'Lakes, contains minimum 30% crude fat. Some research has indicated that lambs on a 24% fat milk replacer will perform well under warm barn conditions. However, in this country, the majority of orphan lambs are born and reared through cold temperature months of January - April. 24% fat on a dry

matter basis versus 30% for the 2 brands evaluated in this study and 40% for natural ewe's milk may be insufficient to meet the enormous energy demand for maintenance under these cold conditions. Also many orphan lambs are from large bitter sizes (i.e.; triplet or more) or contain some Finnish Landrace blood. As a result, their bodies sizes are much smaller than normal lambs leading to quicker reduction in the core temperature. They also contain proportionately much less subcutaneous fat than normal leading to a greatly reduced layer of protective insulation. It may be therefore that a high fat diet is much more critical to survival for these "typical" orphans than for larger, stronger lambs reared on their dams. The minimum 30% fat in Wet Nurse is very likely a positive feature of this brand.

### Conclusion

The growth rate of orphan lambs reared on Wet Nurse lamb milk replacer is quite acceptable. Although the label required some rewording and clarification, both mixing and aesthetic qualities are adequate. A minimum amount of settling and a high fat level make the product acceptable for using in self-feeding containers or under cold barn conditions.

Apart from labelling, which as since been improved, all parameters evaluated lambs reared on Wet Nurse performed equally as well as those on Land O'Lakes. Given the clear superiority of Land O'Lakes over several other domestic brands, Wet Nurse is probably a much superior product as well. It is certainly an acceptable product for sheep producers rearing orphan sheep.

Editor's Note: Wet Nurse is now available from most milk replacer suppliers in Alberta.



## WHAT VALUE IS A DOG

by Marv Brown  
Souris, Manitoba

What value would you place on a hired hand who was alert and ready to work every morning, never gave any back talk, never had a hangover, didn't belong to a union and would rather work than eat? Do these hands exist? Yes, they are called Border Collies!

I am astonished how many farms and ranches I go to in the States and Canada to find the owners are the dogs. People don't seem to realize stock have very little respect for a human. Man stands upright which makes him easy to see, and he moves slowly so the stock take advantage of him. If you're yelling, they know where you are without looking. Now, if a dog is working the stock, they are leery of him and his nip so they keep moving. Stock respect a dog! Dogs save man a lot of work and frustration.

How much is this hand going to cost? This depends on how much the dog knows. Pups can be bought for \$50.00 to \$200.00. Started dogs, dogs that can run out a couple of hundred yards and gather stock in a workable manner, stop, and walk on when told, will start at \$500.00. Now, a dog that will run out a half mile to gather, go left and right, drive away from you, shed off, and double lift is going to start over \$1,000.00. A lot of time and work goes into a fully trained dog. Getting a Border Collie to drive away from his handler is the hardest part of training. When I talk of driving I mean you stay put and let the dog drive the stock up to the feed or whatever.

I travelled Australia and New Zealand for six years and saw all kinds of good dogs and bad dogs.

There were dogs that would get up on the sheep's back in the chute, run to the front and bark on command to keep the sheep moving. Money wouldn't buy some of these dogs. Those stockmen knew the value of their dogs. They could not run the large numbers of sheep and cattle they do if they didn't have dogs. How do you manage?

Say a dog cost \$1000.00. Sounds like a lot, but spread it over five years, it comes to \$200.00 per year. Add another \$50.00 per year for vaccinations and his food, it comes to \$250.00 per year. One weeks wages give you the best hand for a full year.

For people who purchase a puppy, my advice is to get a book on training. I recommend "Anybody Can Do It" by Pope Robertdon, available from Rovar Publishing; 522E, 2nd Street, Elgin, Texas U.S.A. 78621. The price is \$10.75. This book goes through the step by step program of training a dog. It's easy to read - a good road map to follow.

You can also learn a lot by attending training clinics. Contact me if you want to attend one in your area. We in the Border Collie game are always looking for a chance to display the ability of our dogs. If you or your organization would like an exhibition or trial held in your area contact me at the following address:

Marv Brown  
Box 8  
Souris, Manitoba  
R0K 2C0

Ph: (204) 483-2632



ALBERTA FLEECE WOOL COMPETITION  
NOV. 1 - 3, 1984.  
EDMONTON, ALBERTA.

---

"WESTERN CANADA'S PREMIER WOOL SHOW"

**PRIZE MONEY**

Prize Money Offered - \$532.00

The following Prize Money will be offered in each class:

1st - \$20; 2nd - \$18; 3rd - \$16; 4th - \$14; 5th - \$12; 6th - \$10; 7th - \$8; 8th to 12th - \$7 each.

**Class 44 FINE BLOOD STAPLE**

Fine Wools with a fibre of over 2½ inches long. Merino and Rambouillet chiefly typical of this grade.

**Class 45 1/2 BLOOD STAPLE**

Fine medium staple wools with a fibre of over 2½ inches long. Rambouillet and Romney chiefly typical of this grade.

**Class 46 3/8 BLOOD STAPLE**

Medium staple wools with a fibre of at least 2½ inches long. Southdown, Shropshire and Suffolk chiefly typical of this grade.

**Class 47 1/4 BLOOD STAPLE**

Low medium staple - a longer fibre than in medium staple. Oxford and Hampshire chiefly typical of this grade.

**Class 48** Grand and Reserve Grand Champion fleece. 1st and 2nd prize winners in above classes compete. Ribbons only.

The Canadian Co-operative Wool Growers Ltd.  
provide a trophy for the Champion Fleece.

**SPECIAL RULES**

1. Fee of \$1.00 per entry
2. Exhibits must be on grounds by October 31, 1984.
3. Exhibitor or Farm Unit is allowed only two entries per class.
4. Fleece must be grown on property of exhibitor and shown in 1984.
5. Fleeces will be classified by directors prior to show.

**NOTE:** This competition is open to all exhibitors. If you are unable to deliver your fleeces to the fair, you may forward your entries and fees to the Canadian Co-Operative Wool Growers Ltd., Box 1530, Stony Plain, Alberta. T0E 2G0. The Canadian Co-Operative Wool Growers Ltd. will enter the exhibits for you.

CANADIAN CO-OPERATIVE WOOL GROWERS LTD.STONY PLAIN BRANCH REPORT

Will Verboven  
Branch Manager  
C.C.W.G.  
Stony Plain

"WHERE THE HECK IS STONY PLAIN ANYWAY"? Many wool shippers have directed this question to me with various degrees of emphasis I might add, since our move last year.

Stony Plain is located just south of Hwy. 16, 25 miles west of Edmonton. Shippers from South of Edmonton can bypass Edmonton by means of Devon and Hwy. 60. Producers in the Rimbey area could use highways #12 and #770 and the Genesee Bridge to reach Stony Plain from the south.

1984 wool volumes are slightly down from the previous year, however, deliveries are about three weeks ahead of normal, due to the mild winter. All branch wool is being sent to Lethbridge this year, prior to shipment to Carleton Place for grading. This is being done to utilize the new wool compacter which compressed the wool in such a way that twice as much wool can be shipped in the same rail car as was previously possible. This results in a significant saving in freight costs.

Agriculture Canada has announced a stabilization payment of 10.98¢/lb. for 1983 wool. If you have not already received your applications, contact the Stony Plain branch for a copy.

Producers have for some time expressed their concerns over the high cost of the sheep branding paint presently available. So, in that regard, the Stony Plain branch has recently obtained some sheep

branding paint from Australia, and has placed samples in the field for testing purposes. Producers in both Northern and Southern Alberta and B.C. will be evaluating this product for its effectiveness in this climate. This product is significantly less expensive than present ones available, if testing is successful, the product will be obtained in quantity.

In the interim, paint imported from a new source in the U.S. will be available at a lower cost than the present ones listing in the catalogue.

I am also pleased to announce the appointment of Mr. Pieter De Mooy, of 1395 Benvenuto Avenue, Brentwood, B.C. 652-6273 or 652-1507, as our new sheep supply agent in B.C. Producers on Vancouver Island and the Gulf Islands will not be able to obtain their supplies quickly and conveniently from a local source.

The Canadian Co-Operative Wool Growers executive committee at their recent meeting declared that the Canadian Co-Operative Wool Growers annual meeting will be held in Lethbridge on Saturday, April 20, 1985. The Canadian Co-Operative Wool Growers directors and head office management will also be in attendance at the Northern Alberta Canadian Co-Operative Wool Growers shareholders meeting which is scheduled for Wednesday, April 17, 1985 in Stony Plain.







MERRY  
CHRISTMAS

Best wishes and may the new year bring happiness

and prosperity to you and your family.

Debbie Forge

*Debbie*

Karren Green

*Karren*

Don Scheer

*Don*

John Knapp

*John*









---

# sheep notes and news

VOLUME 17, ISSUE #4, DECEMBER 1984

## Table of Contents

HOW TO MAKE MONEY IN THE SHEEP BUSINESS ...	1 - 6
REGULATIONS TO IMPORT FEEDER LAMBS .....	6
MEDICINE LAKE PROVINCIAL GRAZING RESERVE .....	7
WOOL ISN'T WORTH BOTHERING WITH .....	8
REPORT OF CANADIAN CO-OPERATIVE WOOL GROWERS LIMITED .....	9
U.S. SHEEP EXPERIMENT STATION ANNUAL SALE .....	10

Editor: Don Scheer  
Head, Sheep & Goat Section  
7000 - 113 Street  
Edmonton, Alberta  
T6H 5T6

Phone: (403) 427-5077



**Alberta**  
AGRICULTURE  
Animal Industry Division  
Beef and Sheep Branch

---



HOW TO MAKE MONEY IN THE SHEEP BUSINESS  
(A Series of Timely Articles Intended to Help Producers  
Improve Their Net Income)

John Knapp, Sheep Specialist, Airdrie, Alberta

ARTICLE III

How Much Debt Can My Sheep Operation Support?

Not much! In fact, if you are lambing at the rates most producers are, your operation cannot support any debt at all. A recent economic survey of 196 Alberta sheep operations discovered that the average lamb crop weaned was only 120%. Even the top 1/5 of operations averaged only a 130% crop weaned. As the tables following show, these dismal levels of production do not allow a sheep operation to carry any debt load whatsoever - a producer would have to own outright his land, buildings and flocks, simply to

cover his cash costs. However, at the much higher levels of production a few producers are achieving a sheep operation will cover all cash costs, provide a living for the producer and his family, and allow him to make payments on his mortgage.

Let's tackle the question of how much debt an operation can support by first looking at the cash costs of production. Based on a flock of 100 ewes and 4 rams your costs are probably very close to those in Tables I - III.

TABLE I            Ewe Cash Costs

	Unit Price	Per Ewe (1b)	Per Ram (1b)	Totals Amt (1b)	Value (\$)
Hay & Greenfeed	\$70/ton	1,000	1,500	106,000	3,710
Grain & Screenings	5½¢/lb	150	150	15,600	858
1:1 Mineral	28¢/lb	5	5	520	146
Co/I Salt	9¢/lb	10	10	1,040	94
Bedding Straw	1½¢/lb	100	100	10,400	156
Shearing	\$2/hd				208
Vet/Med	\$4.25/hd				442
Repairs					500
Utilities					100
Corral Cleaning	\$2.00/hd				208
Insurance					175
Vehicle Fuel & Repairs					400
Property Taxes	\$1.25/hd				130
Marketing	\$5.25/ewe				525
Legal & Acct.					95
Misc. Supplies	\$1.30/ewe				130
Ram Replacement	\$250 - \$30 (salvage value)				220
Interest (25% of Wintering Cost x 14%)					283
Pasture Costs includes trucking, herding, salt, etc.)	\$2.00/mo	5 mos	5 mos	104 hd	1,040
TOTAL EWE AND RAM COSTS					\$9,420
CASH COST/EWE					\$94.20



Of course, if you are putting up your own hay and greenfeed your cost/ton might be more like \$45. This would reduce your cash cost /ewe by \$13.25 allowing you to break even at about 20% lower lambing

rates than tables IV and V (following) suggest. But remember, by feeding at \$45/ton you are sacrificing \$25/ton income you could have received by selling the hay.

TABLE II Cash Cost

Winter Lambs (Reared on Concentrates - Marketed April - June - 105 Lbs)

	Unit Price	Amt	Per Lamb
			Value
16-18% C.P. Creed Feed	10½¢/lb	15 lb	1.58
14% Grower/Finisher	7¢/lb	292 lb	20.44
7-Way Clostridial Vaccine	10½¢/cc	2x2 cc	0.42
Ear Tags	11¢/tag	1	0.11
Rubber Rings	2¢/ring	1	0.02
Lamb cost/head			<u>\$22.57</u>

TABLE III Cash Cost

Spring Lambs (Reared on Pasture - Marketed August - October - 105 Lbs)

	Unit Price	Amt.	Per Lamb
12% Finisher on 25% of lambs*	6½¢/lb	140 lb x .25 = 35 lb.	2.28
7-Way Clostridial Vaccine	10½¢/cc	2x2 cc	0.42
Eartags	11¢/tag	1	0.11
Rubber Rings	2¢/ring	1	0.02
Injectable Dewormer	13¢/cc	2 cc	0.26
Pasture 0.9¢/day for unweaned lambs x 120 days =			<u>1.08</u>
Lamb cost/head			<u>\$4.17</u>

\* Assume 25% of lambs come off pasture unfinished at 85 lbs. average weight.

Taking the cash costs of production in Tables I - III we derive net returns for both winter lambing and spring lambing using the following assumptions:

- (1) After death loss and retention of replacements market 25 percentage points less than % born.
- (2) Economic survey indicates average weight of lamb marketed by top 1/5 of flocks in Alberta is 105 lbs.

- (3) Gross return per ewe includes returns on lambs at various prices plus \$5/ewe return on sale of wool and cull ewes.

- (4) To account for increased use of milk replacer, higher death loss, lower birth weights lending to slightly longer feeding period, and extra grain fed during flushing and lactation cash cost/ewe is increased as follows: by \$6 at 200% born; \$8 at 225%; \$10 at 250%; \$12 at 275%; and \$14 at 300%.

TABLE IV Winter Lambing (105 Lb. Lamb Marketed)

% Born	% Marketed	Cost of Production (\$)	Price/Lb.							
			60c		70c		80c		90c	
			Gross Return per Ewe(\$)	Return/ Ewe over Cash Costs(\$)	Gross Return per Ewe(\$)	Return/ Ewe over Cash Costs(\$)	Gross Return per Ewe(\$)	Return/ Ewe over Cash Costs(\$)	Gross Return per Ewe(\$)	Return/ Ewe over Cash Costs(\$)
75	50	111.13	36.50	-74.63	41.75	-69.38	47.00	- 64.13	52.25	- 58.88
100	75	116.77	52.25	-64.52	60.13	-56.64	68.00	- 48.77	75.88	- 40.89
125	100	122.41	68.00	-54.41	78.50	-43.91	89.00	- 33.41	99.50	- 22.91
150	125	128.06	83.75	-44.31	96.88	-31.18	110.00	- 18.06	123.13	- 4.93
175	150	133.70	99.50	-34.20	115.25	-18.45	131.00	- 2.70	146.75	+ 13.05
200	175	145.34	115.25	-30.09	133.63	-11.71	152.00	+ 6.66	170.38	+ 25.04
225	200	152.98	131.00	-21.98	152.00	- .98	173.00	+ 20.02	194.00	+ 41.02
250	225	160.63	146.75	-13.88	170.38	+ 9.75	194.00	+ 33.37	217.63	+ 57.00
275	250	168.27	162.50	- 5.77	188.75	+20.48	215.00	+ 46.73	241.25	+ 72.98
300	275	175.91	178.25	+ 2.34	207.13	+31.22	236.00	+ 60.09	264.88	+ 88.97

TABLE V Spring Lambing (105 Lb. Lamb Marketed)

% Born	% Marketed	Cost of Production (\$)	Price/Lb.							
			60c		70c		80c		90c	
			Gross Return per Ewe(\$)	Return/ Ewe over Cash Costs(\$)	Gross Return per Ewe(\$)	Return/ Ewe over Cash Costs(\$)	Gross Return per Ewe(\$)	Return/ Ewe over Cash Costs(\$)	Gross Return per Ewe(\$)	Return/ Ewe over Cash Costs(\$)
75	50	97.33	36.50	-60.83	41.75	-55.58	47.00	- 50.33	52.25	- 45.08
100	75	98.37	52.25	-46.12	60.13	-38.24	68.00	- 30.37	75.88	- 22.49
125	100	99.41	68.00	-31.41	78.50	-20.91	89.00	- 10.41	99.50	+ .09
150	125	100.46	83.75	-16.71	96.88	- 3.58	110.00	+ 9.54	123.13	+ 22.67
175	150	101.50	99.50	- 2.00	115.25	+13.75	131.00	+ 29.50	146.75	+ 45.25
200	175	108.54	115.25	+ 6.71	133.63	+25.09	152.00	+ 43.46	170.38	+ 61.84
225	200	111.58	131.00	+19.42	152.00	+40.42	173.00	+ 61.42	194.00	+ 82.42
250	225	114.63	146.75	+32.12	170.38	+55.75	194.00	+ 79.37	217.63	+103.00
275	250	117.67	162.50	+44.83	188.75	+71.08	215.00	+ 97.33	241.25	+123.58
300	275	120.71	178.25	+57.54	207.13	+86.42	236.00	+115.29	264.88	+144.17

Tables IV and V look pretty grim don't they! Their message is clear. There's no money in the sheep business if you can't produce at least a 200% lamb crop. In fact if you are serious about making money you have to set your sights on a 300% lamb crop!

There is one ray of hope in the sheep industry. Tables IV and V are based on a 105 lb. lamb. Lambs in excess of 130 lbs. are now being sold in the Western United States without discount. Research at the Alberta Ram Test Station suggests

most existing breeds have the capability to produce lean, desirable 150 lambs. Let's assume we could market a 150 lb. lamb at 70c/lb. and that the cost of the additional 45 lbs. gain was 33c/lb. At a 200% crop born (spring lambing) we would realize an extra \$25 net return/ewe. This small increment in weight therefore would double our return/ewe over cash costs and reduce our break even point by a staggering 50% lamb crop. When the day of heavier lambs without penalty comes - and come it must - the sheep industry will look a whole lot more attractive!

Another point these tables bring home is that the price/lb. must be fully 20¢ higher to justify the additional costs entailed in winter lambing. For example in table V (spring lambing) you can see that at 175% marketed a producer requires only 60¢/lb. to cover his cash costs. But in table IV (winter lambing) at 175% marketed the price must be 80¢/lb. before cash costs are covered. In 1983 the average price spread at Lambco between lambs marketed April - June and lambs marketed August - October was only 14¢/lb. In 1984 it was only 10¢/lb. In the last 2 years therefore the price differential has not been high enough to justify winter lambing for those commercial producers who have the option of lambing in the spring.

Now let's answer our original question (how much debt can my sheep operation support) by using the following assumptions:

(1) A 500 ewe flock might constitute an economic unit. Therefore multiply the "return/ewe over cash cost" by 500 to obtain a flock return over cash costs.

(2) The sheep industry like other segments of agriculture is fraught with risk - an abortion storm, a late spring blizzard, a serious dog attack, a batch of poisoned feed, a

price drop to 55¢, etc. To allow for this risk we reduce our flock return over cash costs by 10% of the cost of production.

(3) Most modern farm families require a minimum living allowance of \$15,000/annum. Therefore deduct \$15,000 living costs from the risk-reduced flock return over cash costs to derive a "residual for debt surviving" amount.

(4) Most mortgages on farm land are for 20-25 year terms. Most loans for livestock, buildings and machinery are for 5-10 year terms. Assume therefore that the average repayment period for the capital loans on your farm is 15 years. (Remember we have already paid interest on our operating loan in table I.)

Assume that the average interest rate on these loans is 13%. Using a table entitled "Capital Recovery Factors" (available in most economic texts, the Alberta Farm Guide, or from your banker) we find that the factor for a 15 year amortized loan at 13% interest is .1547. Divide this into the residual for debt servicing figure to determine how large a loan our sheep operation can support.

The foregoing assumptions can be worded into a simple formula:

$$\frac{[(\text{Return/Ewe Over Cash Costs} - 10\%) \times 500] - 15,000}{.1547} = \text{maximum debt}$$

This formula results in tables VI and VII.



TABLE VI Winter Lambing (105 Lb. Lamb Marketed) Debt Carrying Capacity

% Marketed	Price/Lb.							
	60c		70c		80c		90c	
	Residual for Debt Servicing (\$)	Maximum Debt Operation Can Carry (\$)	Residual for Debt Servicing (\$)	Maximum Debt Operation Can Carry (\$)	Residual for Debt Servicing (\$)	Maximum Debt Operation Can Carry (\$)	Residual for Debt Servicing (\$)	Maximum Debt Operation Can Carry (\$)
50	-57,870	Nil	-55,245	Nil	-52,620	Nil	-49,995	Nil
75	-53,100	Nil	-49,160	Nil	-45,225	Nil	-41,285	Nil
100	-48,325	Nil	-43,075	Nil	-37,825	Nil	-32,575	Nil
125	-43,560	Nil	-36,995	Nil	-30,435	Nil	-23,870	Nil
150	-38,785	Nil	-30,910	Nil	-23,035	Nil	-15,160	Nil
175	-37,310	Nil	-28,120	Nil	-18,935	Nil	- 9,745	Nil
200	-33,640	Nil	-23,140	Nil	-12,640	Nil	- 2,140	Nil
225	-29,970	Nil	-18,155	Nil	- 6,345	Nil	+ 5,470	35,359
250	-26,300	Nil	-13,175	Nil	- 50	Nil	+13,075	84,518
275	-22,625	Nil	- 8,185	Nil	+ 6,250	40,401	+20,690	133,743

TABLE VII Spring Lambing (105 Lb. Lamb Marketed) Debt Carrying Capacity

% Marketed	Price/Lb.							
	60c		70c		80c		90c	
	Residual for Debt Servicing (\$)	Maximum Debt Operation Can Carry (\$)	Residual for Debt Servicing (\$)	Maximum Debt Operation Can Carry (\$)	Residual for Debt Servicing (\$)	Maximum Debt Operation Can Carry (\$)	Residual for Debt Servicing (\$)	Maximum Debt Operation Can Carry (\$)
50	-50,280	Nil	-47,655	Nil	-45,030	Nil	-42,405	Nil
75	-42,980	Nil	-39,040	Nil	-35,105	Nil	-31,165	Nil
100	-35,675	Nil	-30,425	Nil	-25,175	Nil	-19,925	Nil
125	-28,380	Nil	-21,815	Nil	-15,255	Nil	- 8,690	Nil
150	-21,075	Nil	-13,200	Nil	- 5,325	Nil	+ 2,550	16,484
175	-17,070	Nil	- 7,880	Nil	+ 1,305	8,436	+10,495	67,841
200	-10,870	Nil	- 370	Nil	+10,130	65,482	+20,630	133,355
225	- 4,670	Nil	+ 7,145	46,186	+18,955	122,527	+30,770	198,901
250	+ 1,530	9,890	+14,655	94,732	+27,780	179,573	+40,905	264,415
275	+ 7,735	50,000	+22,175	143,342	+36,610	236,652	+51,050	329,994

Tables VI and VII look really grim! If you are lambing in the winter and marketing even a 200% crop you still require an off-farm job to indulge yourself in the luxury of keeping sheep. Spring lambing looks

considerably better at a 200% crop marketed, but even here you would have to count on the very high price average of 80c/lb. before your operation could carry a modest debt load of \$64,000.

You may be inclined to say to yourself "These figures can't possibly be right." Unfortunately they are very near the truth. Proof of this comes in the enormous failure rate (estimated at 90%) in sheep operations financed by the Federal Farm Credit Corporation and Provincial Agriculture Credit Agencies. The problem is not limited to Canadian producers. At a recent meeting of the American Sheep Producers Council a major U.S. lender stated that 4 out of every 5 sheep loans he had made were in arrears and the situation was growing steadily worse. If these figures are untrue how else do we explain the incredibly transient nature of sheep flocks, the ritualistic passing on of the flock every 3 years from one disillusioned producer to another naive beginner armed with the silly notion that a 150% lamb crop is great? How else do we explain the mood of desperation amongst those who are "hanging in there" supporting their sheep operations with outside income?

The message is clear. Unless we improve our level of productivity fast we are not going to have something we can call an industry. This should not come as a great surprise. Other segments of agriculture have faced similar situations. Several decades ago the dairy and poultry industries were challenged to double and triple their level of productivity. They were able to meet that challenge and as a result have survived and prospered.

In the sheep industry that challenge comes in the form of a 300% lamb crop. Productivity at that level does not mean abandoning pasture or the concept of the ewe as a ruminant but it does mean accelerating to 1.5 lamb crops/year. We do have both the technology and the breeds to produce a 300% crop. Witness the growing number of large flocks in Canada and the U.S. producing 2.9 - 3.7 live lambs/ewe/year. Let's get with it! It can be done! The sheep industry can be profitable!

#### REGULATIONS TO IMPORT FEEDER LAMBS

The Veterinary Inspection Directorate of Agriculture Canada has issued new regulations governing the importation of feeder lambs from the United States. The following applies:

1. Feeder lambs may enter Canada from the U.S. without the usual blood tests.
2. They must enter Canada between November 1st and March 31st.
3. They must travel directly to a previously approved feedlot for quarantine.
4. Upon arrival at the feedlot, all lambs must be tested for Blue tongue and the ram lambs for Brucella ovis.
5. Any reactors found at that time will be removed to slaughter without compensation.

Further information can be obtained from Dr. L.G. Gould, Regional Veterinarian, #750, 220 - 4th Avenue, S.E. Postal Station "M", Bag 2998, Calgary, Alberta T2P 3C3.

## MEDICINE LAKE PROVINCIAL GRAZING RESERVE

### "Another Good Year"

Dr. Ralph Shute of the Health Management Branch, Alberta Agriculture has reported that the sheep flock on the Medicine Lake Provincial Grazing Reserve has, for the second consecutive summer, been free of footrot.

An intensive footrot eradication program has been in place over the last 4 grazing seasons. The sheep are inspected by a veterinarian at their home farms before entering the grazing reserve, again at entry, and several times over the summer when sheep are handled for any other reasons. As well, the sheep are all inspected as they leave the pasture.

The eradication of this crippling disease greatly improves the economic performance of sheep, not only while on pasture, but at the home farm as well.

Numbers of sheep making use of the provincial grazing reserve have dwindled due to the fear of one's sheep contracting footrot and due to some infected flocks not qualifying for entry.

It is expected that numbers of sheep entered onto the pasture will increase now that footrot has been eliminated.

The Health Management Branch in cooperation with the Sheep &

Goat Section, both of Alberta Agriculture, will be pleased to assist any sheep producer who may have footrot in their sheep to eradicate the disease from their flocks. A home flock, free of footrot, or any other contagious disease is necessary to qualify sheep for entry to the Medicine Lake Provincial Grazing Reserve.

The Medicine Lake Provincial Grazing Reserve is located 4.5 miles west from Winfield along highway 13 and 2.5 miles south.

The pasture season is approximately from May 15 to October 15. Several entry and take-out dates are usually scheduled. Pasture charges were 5.4¢/day/ewe plus 48¢/ewe/season to cover salt, minerals and pharmaceuticals. The flock is divided into breeding (wet) and non-breeding (dry) pastures. Ewes on the wet pasture are charged an additional fee.

In addition to the footrot eradication program an ongoing predator control program has also been successful.

Applications for the 1985 season will be accepted up to January 31, 1985 and are available from Morris Seiferling, Regional Manager, West Central Grazing Reserves, P.O. Box 411, Drayton Valley, Alberta T0E 0M0 (Phone: 542-3537).





"WOOL ISN'T WORTH BOTHERING WITH"

"I DON'T GET ANYTHING FOR IT"

Will Verboven  
Branch Manager, Stony Plain  
Canadian Co-operative Wool Growers

We hear these comments quite frequently from wool shippers. Producers are of course quite justified in their concern over the price received for wool.

The price you receive for each particular grade of wool is the world price minus grading and shipping costs. Your co-op strives to keep operating costs low, however, only through a significant increase in total volume of wool, can further economies be achieved.

Inflation effects the operation of your co-op the same as any other organization.

Freight cost is another area that continues to increase. In order to reduce costs, the co-op recently installed a wool bag compactor in Lethbridge, this machine enables more wool to be shipped in a rail car. Producers should know that the freight cost on your grading statement is not the actual cost. The difference between the cost the producer pays and the actual cost of the freight is subsidized by the co-op.

Producers can also increase their returns by separating out tags and excessive vegetable matter. Properly packed wool bags should contain 200 lbs of wool, this reduces your wool bag costs. Producers should also ship their wool as soon as possible after shearing. Many producers who store their wool for one or more years have found that when they do finally ship, the value of the wool has dropped as much as 60%. Remember, wool does deteriorate and shrink!!

I am pleased to announce that the Stony Plain Branch is now the Western Canadian distributor for Premier Sheep Supplies of the U.S.A. Many new sheep handling items will now be available, look for them in our upcoming branch catalogue.

Remember for your calendar:

Alberta North Canadian  
Co-operative Wool Growers  
Shareholders and Wool Shippers  
annual meeting and open house is  
Wednesday, April 17th, 1985 -  
C.C.W.G. - Stony Plain.



## REPORT OF CANADIAN CO-OPERATIVE WOOL GROWERS LIMITED

From the Head Office of the Canadian Co-operative Wool Growers

The 1984 wool marketing season has recorded price increases, on average, of 20% to producer returns. The main reason this has happened is increased world wide demand, brought about by generally improved economic conditions and lower interest rates. With consumer confidence being restored this in turn has encouraged woolen mills to put wool back into inventory rather than the past hand to mouth scenario which has existed.

The current picture can be described as cautiously optimistic. In marketing any world commodity many factors have to be considered in determining selling prices. Supply and demand, fluctuations in foreign currencies and devaluations are primary ones. New Zealand and Australian wool stock piles stand at 400,000 and 1.2 million bales respectively and there is no doubt that these countries would like to see a lower level of inventories. Thus, one reason for a little uncertainty at this point in time with buyers taking a wait and see attitude.

The U.S. dollar continues to be strong against other currencies and the devaluation of New Zealand currency by 20% in late July has caused a somewhat softer market at this time.

Our most important concern this past summer has been making delivery of wool contracts sold earlier in the year for spring and summer delivery. The on-again off-again dock workers strike in the U.K. made it impossible to place these contracts and as a result wool had to be held in our inventory for an additional six to eight weeks. This situation has now been resolved but, it was an

unforeseen circumstance that we had not anticipated.

We realize the importance of diversification and that it is imperative for us to continue our efforts in introducing Canadian wool to a larger range of prospective buyers. In this regard we are looking at Pacific Rim countries and have recently sold a container of Domestic wool to Japan. We have also made contact with two Korean wool buyers and are hopeful of placing wool there as well. Domestic wool sales in Canada are slightly higher than at this time last year as we have been able to place wool with two new customers.

The retail division within the Co-op, namely Stockmen Supplies and Manufactured Woolens are once again recording good sales growth. In addition to regular clientele we have noticed a much improved tourist trade this past summer and this has helped our business.

On a national basis the overall volume of just under two million pounds will be maintained in 1984. The federal stabilization payment on 1983 wool has been established at 24¢/kg and we encourage all producers to apply. Please contact us for the applicable forms.

In the near future it is the intention of this organization to submit a proposal to government for a national wool incentive payment program, similar to the U.S. plan that has been in use for many years. It is totally funded by tariffs on wool imports and a program of this nature in Canada would go a long way in encouraging and developing the wool industry in Canada.



# U.S. SHEEP EXPERIMENT STATION ANNUAL SALE

DUBOIS - A total of 1741 head of surplus breeding sheep were sold at the U.S. Sheep Experiment Station, Thursday, September 20, 1984 at the Station headquarters north of Dubois, Idaho. Buyers attended from 16 states and Canada which included: Arizona, California, Colorado, Idaho, Kentucky, Maryland, Minnesota, Montana, New York, Oregon, Utah, Vermont, Virginia, Washington, Wisconsin, Wyoming and Quebec, Canada.

The top selling ram was an unregistered Rambouillet 2-year-old, purchased by Christenson Ranch, Dillon, Montana for \$1,200.00. A Targhee 2-year-old registered ram sold for \$950.00 to LaVonne Gemaehlick, Jacksonville, Oregon. The top Columbia registered 2-year-old ram sold to Bill Schmidt, MacKay, Idaho, Fall River Sheep Co., Weiser, Idaho, Sunny Hawley, Howe, Idaho and Jim Williams, Henderson, Kentucky for \$300.00.

The top Polypay ram brought \$650.00 purchased by Jim Williams, Henderson, Kentucky. The top Finn x Rambouillet yearling ram sold to Gail Jacobson, Crowheart, Wyoming for \$150.00. The high breed average for rams was \$403.00 on 44

head of Rambouillets. Eighty Polypay rams averaged \$152.00, 52 Targhee rams \$318.00, 14 Finn cross rams \$109.00 and 28 Columbia rams averaged \$189.00.

Don Simons, Quebec, Canada purchased 6 head of yearling certified-registered Polypay ewes and 5 head of yearling registered Polypay ewes for \$250.00 per head.

The top 2 head of registered Targhee 4-year-old ewes sold for \$220.00 a piece to LaVonne Gemaehlick, Jacksonville, Oregon; Tom Blaine, Valley Ford, Washington and Francis Biegalko, Stanford, Montana paid \$75.00 per head for 5 Columbia registered yearling ewes. Top Rambouillet ewes (yearlings) sold for \$80.00 each to Marilyn McFarlane, Cut Bank, Montana; Cornell University, Ithaca, New York and Miller Bros., Chester, Idaho.

Total receipts for the sale grossed \$141,205.00. The annual sheep sale is held in cooperation with the University of Idaho.

Lunch was served at the Station headquarters to a capacity crowd of the Sheep Station ladies.







